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NON-DISCRETIONARY CONCEALED CARRY LEGISLATION AND
VIOLENT CRIME: A RE-ANALYSIS OF THE
JOHN R. LOTT JR. DATA SET

APPROVED BY SUPERVISING COMMITTEE:

Michael J. Gilbert, Chair

Patricia M. Harris

Roger Enriquez

Accepted: _____

Dean of Graduate Studies

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NON-DISCRETIONARY CONCEALED CARRY LEGISLATION AND
VIOLENT CRIME: A RE-ANALYSIS OF THE
JOHN R. LOTT JR. DATA SET

by

WILLIAM F. H. ROBERTS, B.A.

THESIS

Presented to the Graduate Faculty of
The University of Texas at San Antonio
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PREFACE AND ACKNOWLEDGEMENTS

Gun control is perhaps one of the most contentious policy issues in America. The uninitiated may quickly become bewildered by the plethora of conflicting studies and the tenacity with which findings are defended. The issues involved range from the nature and prevalence of defensive gun use to constitutional issues, international comparisons, and guns as a public health hazard. Any attempt to arrive at meaningful policy recommendations necessitates exploration of a multitude of diverse yet interrelated topics.

Through a comprehensive literature review and data analysis, this thesis attempts to arrive at realistic policy interventions aimed at alleviating gun violence while preserving the legitimate uses of guns by law abiding citizens. This thesis argues that existing firearms policy can be improved upon, however the reader should be under no illusions that any easy answers to this “wicked” social problem are provided in the pages that follow. Indeed, this thesis concludes that without fundamental change in the very nature of our society, gun violence is a problem that can only be mildly ameliorated at best.

The final product is far more extensive than I had initially envisioned. I would like to thank my thesis committee for their unfaltering support and assistance. Dr. Michael Gilbert, the thesis committee chair, was essential to this endeavor. Not only did he provide the initial encouragement to pursue this topic, but through his scrupulous review of several drafts provided recommendations on the structure of this work and helped me maintain a balanced perspective and avoid the pitfalls of polemics.

I would also like to thank Dr. Patricia Harris, whose assistance with the methodology and quantitative analysis in Chapter Seven and Chapter Eight was crucial to the completion of this work. She clearly and patiently explained concepts in a manner that facilitated completion of this thesis within limited time constraints. Without her assistance this could not have been a

quantitative work. I would also like to thank Dr. Roger Enriquez for his assistance with constitutional and legal issues, especially his contributions to Chapter Two and Chapter Three.

Finally, I would also like to thank two scholars who were not part of my thesis committee. Dr. John R. Lott Jr., was kind enough to provide the data set for this thesis and patiently answered questions during the early stages of this work. Dr. D. B. Kates, provided numerous journal articles that are cited throughout the following pages and suggested important additions to the literature review. His extensive knowledge of the field and helpful recommendations contributed significantly to the final product.

December 2003

NON-DISCRETIONARY CONCEALED CARRY LEGISLATION AND
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JOHN R. LOTT JR. DATA SET

William F. H. Roberts, BA
The University of Texas at San Antonio, 2003

Supervising Professor: Dr. Michael J. Gilbert

The prevalence of guns in America is a controversial subject. Some depict guns as pathogens or instruments of destruction. According to this perspective, greater availability of guns correlates to increased death and injury. Others view guns as deterrents to crime and a means of providing personal protection from victimization. This thesis examines the relationship between guns and violence through a comprehensive literature review and quantitative data analysis. Topics covered include: the role of culture, symbolism, interest groups, the media, and politicians in framing the debate; the Second Amendment and relevant Supreme Court decisions; a summary and evaluation of current federal firearms legislation; pro-control arguments; international comparisons; the pro-gun perspective; and an analysis of non-discretionary concealed carry legislation. Thirty-three states have now adopted non-discretionary "shall issue" concealed carry statutes. These laws require that citizens who meet requirements for gun ownership be issued a concealed carry permit. Using a data set provided by Dr. John Lott Jr., the effects of nondiscretionary concealed carry legislation on rates of homicide, robbery, aggravated assault, and rape are explored and relevant policy recommendations offered.

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INTRODUCTION

Once upon a time, long before there was a National Rifle Association; before there were bumper stickers bearing catchy slogans such as “Guns don’t kill people, people kill people” and “When guns are outlawed, only outlaws will have guns;” Cesare Beccaria (1764/1963, pp. 87-88) noted:

False is the idea of utility that sacrifices a thousand real advantages for one imaginary or trifling inconvenience; that would take fire from men because it burns, and water because one may drown in it; that has no remedy for evils, except destruction. The laws that forbid the carrying of arms are laws of such a nature. They disarm those only who are neither inclined nor determined to commit crimes. Can it be supposed that those who have the courage to violate the most sacred laws of humanity, the most important of the code, will respect the less important and arbitrary ones, which can be violated with ease and impunity, and which, if strictly obeyed would put an end to personal liberty-so dear to men, so dear to the enlightened legislator-and subject innocent persons to all the vexations that the quality alone ought to suffer? Such laws make things worse for the assaulted and better for the assailants; they serve rather to encourage than to prevent homicides, for an unarmed man may be attacked with greater confidence than an armed man.

Some might argue that the passing centuries rendered these observations obsolete. After all, Beccaria wrote in a period when a lone gunman could not take the lives of dozens of his fellow citizens within a few brief moments. A firearm could only be discharged once before being reloaded and this took a considerable amount of time. Modern firearms technology has produced weapons with a destructive capability previously unimagined (Amar, 2002, p. 107; Cottrol & Diamond, 1991, pp. 315-317).

The United States is among the leaders of the industrialized western world in gun violence. Including accidental deaths, homicides, and suicides, there were 28,663 firearm related fatalities in the United States during 2000 (Minino, Arias, Kochanek, Murphy, & Smith, 2002, p. 10). In some years, more Americans are killed by firearms than were slain during the entire Korean War (Cook, 1991, p. 9). Approximately 70% of all criminal homicides in

America are perpetrated with a firearm. Handguns represent approximately 80% of the firearms used (Federal Bureau of Investigations, 2002, pp. 19, 27; Krug, Powell, & Dahlberg, 1998, p. 214; Zawitz & Strom, 2000, p. 2; Zimring, 1995, p. 5).

Firearms violence affects practically all Americans. Many citizens live in fear of victimization. Legislators and politicians must address the issue of crime and gun violence and deliver results in the face of reduced budgets, widespread access to information, a better-informed public, and greater demands for accountability. Social scientists and academics from fields as diverse as economics, law, political science, and medicine are expected to provide viable solutions and workable policy recommendations. In this sense they are all “under the gun” (Watkins, 1997, p. 251; Wright, Rossi, & Daly, 1983, pp. xiii-xiv; Zimring, 1995, pp. 1, 7). The problem of gun violence is particularly acute in larger urban areas which experience the highest murder rates (Federal Bureau of Investigation, 2002, p. 22). Beckett and Sasson (2000, p. 36) noted that in areas of concentrated poverty, murder rates may be up to twenty times the national average.

At the same time, those viewing firearms as a deterrent to crime and a means of providing personal security insist that guns provide a social benefit that should not be overlooked. Using National Institute of Justice estimates on the costs of victimization, Lott (2000, pp. 109, 111) argued that a 1% increase in the number of concealed-carry permits reduced victim costs by over 3 billion dollars. In addition, he claims that if the entire country had adopted concealed-carry laws in 1992, between 1,405 and 1,583 lives would have been saved and 4,000 rapes avoided (Lott, 2000, pp. 111, 160).

Some studies have found that private citizens use firearms for protection millions of times each year (Cook & Ludwig, 1996; Kleck & Gertz, 1995). Others claim that up to 83% of Americans will be victims of violent crime sometime during their life (Kates, 1991, p. 121;

Kleck & Kates, 2001, p. 286). Widespread gun ownership could contribute to increased levels of public safety.

There are roughly 200 to 250 million firearms in circulation in America. Of these, 80 to 100 million are handguns. Over 4 million new guns and 2 million handguns are added to these totals each year (Carter, 2000, p. 64; Kleck & Kates, 2001, pp. 56, 67; Malcom, 2002, p. 219; Rosen, 2000, p. 48; Watkins, 1997, p. 252; Wright, 1995, p. 64). Determining what to do about gun ownership in our society is quite literally a policy issue that involves life and death consequences.

Yet, the role of personal viewpoints in interpreting facts is evident even in regard to these uncontroversial estimates. Those favoring greater restrictions believe that levels of gun crime are high in the United States due to a greater availability of firearms. They would view these estimates as evidence that quick action is required to exert control over an ever-increasing tide of weapons. A pro-gun perspective would view the same numbers as evidence of the futility of any meaningful efforts at governmental controls (Bruce-Briggs, 1976, p. 39; Wright, et al., 1983, pp. 4, 6).

Further, pro-gun proponents would insist that only a fraction of 1% of all privately owned firearms are used in a crime in a given year and fewer than 2% of handguns and 1% of all guns will *ever* be involved in violent crime. Restrictive legislation could remove 99% of guns and still be a failure (Kleck & Kates, 2001, p. 19; Wright, et al., 1983, pp. 6, 189).

A wide array of proposals has been offered to address the issue. Seemingly everyone has an opinion about what should be done, ranging from more stringent enforcement of existing legislation, to requirements for permits, registration, or even outright bans on certain types of firearms. Paradoxically, during the same period that stricter federal and state legislation was introduced to control "assault weapons" and high capacity magazines, a number of states

enacted non-discretionary concealed carry legislation, with 33 states now requiring the issue of a concealed-carry permit to those citizens otherwise eligible to legally possess a handgun (Jacobs, 2002, p. 206; Lott, 2003, pp. 30, 73).

This legislation is sometimes referred to as “shall issue” or “non-discretionary.” For purposes of clarity, this legislation will be referred to throughout this thesis as “non-discretionary concealed carry.” Non-discretionary states *must* approve the concealed permit within a specified time frame if there are no legal reasons which prevent the applicant from owning a gun. This is in contrast to discretionary states, which *may* issue a permit if the applicant provides good reason. There are also restrictive states, which provide no provisions for concealed carry by citizens (Lott, 2000, p. 46).

A recurring theme is the social desirability of widespread firearm (and especially handgun) ownership and the impact on American quality of life. Developing coherent, workable harm-reduction measures requires an analysis of both the costs and benefits of gun ownership and the desirability of regulation versus deregulation legislation (Azrael & Hemenway, 2000, p. 290; Cook & Ludwig, 1997, p. 1; Cook & Ludwig, 1998, p. 112; Ludwig, 1998, pp. 239-240; Schnebly, 2002, p. 378; Wells, 2002, p. 128). The intent of this paper is to examine both sides of the gun control issue, present a well informed review of the literature, and provide reasoned and workable policy recommendations. The paper begins with a few caveats intended to familiarize the reader with the nuanced nature of the topic.

Chapter One examines patterns of gun ownership in America. Gun owners have been found to share certain common traits as have those advocating stronger controls. This suggests to some that a cultural struggle is involved and the issue is not solely confined to concerns with crime reduction. These assertions are reviewed and the role of interest groups, politicians, and

the media in shaping public opinion is discussed. The chapter concludes with an examination of public opinion regarding the need for more controls.

Chapter Two provides an analysis of the debate over the Second Amendment. The collective versus individual rights interpretations of the Amendment are reviewed. Relevant Supreme Court Cases are explored and claims that the Amendment precludes attempts at 'reasonable' controls are examined.

Chapter Three summarizes pertinent federal firearms policy and provides a brief evaluation of existing federal legislation. Chapter Four provides an overview of the two primary pro-control arguments; the epidemiologist and instrumentalist perspectives. Chapter Five reviews the findings of international comparisons, and explains how cross-national rates of homicide, suicide, and other crimes are used to support arguments of both pro-control and pro-gun advocates. The experiences of several western industrialized nations with a firearms registration system and the potential for a "slippery slope" are considered.

Chapter Six reviews the two primary arguments of pro-gun advocates, which focus on the nature and prevalence of defensive gun use and the deterrent effect of an armed citizenry. Chapter Seven discusses the data set used for this thesis, methodology, and research findings. Chapter Eight reports the research findings. Chapter Nine provides policy recommendations based on the literature review and quantitative analysis.

CAVEATS

Like most wicked policy problems, the “Great American Gun War” (Bruce-Briggs, 1976) is a volatile, divisive, and emotional issue where middle ground is elusive. “Facts” are wielded by claims makers and data and statistics distorted by advocates on either side. However, unlike other debates, this one is peculiar. It is perhaps the only policy issue where liberals and conservatives seem to reverse their typical positions and embrace perspectives usually held by their counterparts.

Cottrol and Diamond (1991) posit that liberals typically insist that constitutional rights be protected regardless of the inconvenience. Not so with the Second Amendment. Likewise, conservatives often apply a “cost-benefit” rule to constitutional protections, especially in the case of defendant rights. With the Second Amendment conservatives adopt an “absolutist” position and refuse to give any ground.

At times, the debate deteriorates to the level of mudslinging. Those opposed to stricter gun control are castigated as rednecks, gun nuts, and yahoos (LaFollette, 2001, p. 34; Rosen, 2000, p. 53). Those promoting stricter gun control are portrayed as social and political elitists with little understanding of the social conditions where guns may be needed (Snyder, 1993, p. 47; Stell, 2001, p. 31). Some go so far as to claim that misguided and incompetent attempts at social engineering have victimized those they intend to help. By constructing gun free school zones, gun control advocates are said to have created, “...hunting preserves of helpless young victims for those psychopaths who would hunt human prey” (Utter & True, 2000, p. 76).

But the role of ideology is not confined to special interest groups. Even among scholars, discourse regarding gun control is characterized as a “dialogue of the deaf.” It is a debate often dominated by participants more occupied with advancing political ideology than obtaining scientific illumination or developing sound policy. Many scholars approach the topic as

advocates, more intent on persuading than informing, much of the literature is polemical to varying degrees, and discussion of the issue usually encompasses a total world-view. Indeed, academics involved with the debate sometimes bear more resemblance to sages or missionaries than social scientists (Bruce-Briggs, 1976, p. 37; DeZee, 1983, pp. 368-369; Kates, Schaffer, Lattimer, Murray, & Cassem, 1995, p. 522; Kleck & Kates, 2001, p. 129; Squires, 1999, p. 318; Tonso, 1983, pp. 325-326, 330; Watkins, 1997, p. 251; Wright, et al., 1983, pp. xi, 3, 8).

A recent Washington Times article (McCain, 2003) provides an illustration of the role of personal bias in undermining research findings. Professor Michael A. Bellesiles' once widely cited and highly acclaimed book, *Arming America: The Origins of a National Gun Culture*, was removed from print. The prestigious Bancroft Prize was revoked, and Dr. Bellesiles resigned from Emory University.

The article goes on to report the highly questionable academic integrity of the work. Data appear to have been falsified, misrepresented, and exaggerated. Whether the result of "sloppy research" or intentional fabrication, this incident drastically underscores the extreme viewpoints held by many of those involved with the gun control issue and how personal sentiments can overwhelm scientific rigor. Thus, empirical data, when available, are often interpreted or manipulated based on pre-existing individual perspectives and underlying agendas. These caveats emphasize the importance of adopting a critical, skeptical perspective when analyzing the various claims peddled by those engaged in the debate. With these considerations in mind, we now turn to an examination of who owns guns, cultural aspects of the gun control debate, public opinion regarding the need for more controls, and the role of the media, interest groups, and politicians in shaping those opinions.

CHAPTER ONE: GUNS IN AMERICA

Patterns of Gun Ownership

A number of studies found evidence that certain characteristics are associated with increased rates of gun ownership. Wright, et al. (1983, pp. 11; 108-109, 117, 122) reported that gun owners were most likely to be southern, male, rural, middle class, and protestant, with a history of firearms involvement spanning most of their lives. The most important predictor of firearm ownership was whether one's father owned a gun.

In 1994, gun ownership was highest among middle-aged, college-educated inhabitants of rural areas. Although whites were significantly more likely to own guns in general, when only handguns were considered ownership rates were almost equal across racial groups. Individuals reared in a home where guns were present were three times more likely to own guns (Cook & Ludwig 1996, pp. 32, 35; 1997, p. 2).

In 2000 and 2001, gun ownership was highest among males. Whites were more likely to own shotguns, rifles, and guns of all types. Blacks were more likely to own handguns. The age group reporting the highest ownership was 30 to 39 according to the 2001 Harris Polls, with the 2000 General Social Surveys finding ownership highest among those 50 years and older. Respondents with "some college" reported slightly higher gun ownership in the 2001 Harris Poll, while high school graduates reported slightly higher ownership in the 2000 GSS Survey. Gun ownership was highest among those earning \$50,000 to \$74,999. Republicans, Protestants, and Southerners were most likely to report gun ownership (Pastore & Maguire, 2002, pp. 148-149). Since at least 1973, these indicators have remained largely consistent. That gun owners have repeatedly been found to share common traits leads some to the conclusion that there is a "gun culture," at least with gun ownership for sport (Wright, et al. 1983, pp. 111-112; 115, 119; Wright, 1995, p. 67).

Wright et al (1983, p. 312) found that approximately half of American households owned a firearm. Fourteen years later, Cook and Ludwig (1997, pp. 1-2) reported that gun ownership was declining, perhaps as a result of increasing urbanization. They suggest a better figure was between 38 and 43%. Gallup Poll information indicated that gun ownership had declined in recent years with approximately 40% of respondents having a gun in their home in 2001 (Pastore & Maguire, 2002, p. 147). General Social Survey information also indicated a decline, although these surveys reported somewhat lower estimates with 32% of households reporting gun keeping a gun in their home in 2000 (Pastore & Maguire, 2002, p. 148). While gun ownership seems to be declining, a significant proportion of Americans still own guns. Long held family traditions and deeply held personal beliefs are likely to be involved with gun ownership. Proposed policy interventions should be informed by these observations.

The Role of Culture and Symbolism

Besides the deadly serious nature of the issue, some posit that a cultural struggle is also involved. Although gun control is most likely seen by its proponents as effective in reducing rates of violent crime, some studies have found that just as gun owners tend to share certain traits, so do those favoring increased gun controls. The strongest support for increased gun control is said to have been found among liberals, women, urbanites, and non-hunters/gun owners. Attitudinal variations among demographic and social groups suggests to some a clash between a rural, traditional, status-quo, gun-owning culture and a more modern, cosmopolitan, urban culture. Thus, in addition to the belief that gun control measures will reduce crime, gun control might also be a symbolic means of stigmatizing and asserting moral superiority against disliked social groups (Hartnagel, 2002, pp. 405-407; 418; Kates & Polsby, 1995, p. 254; Kleck, 1996, pp. 387-388; 401)

Examining General Social Survey data, Kleck (1996, pp. 387-388; 401) found that rather than a response to personal experiences as a victim of crime, public sentiment favoring gun control was most likely found among those segments of the population averse to guns and gun ownership. The strongest support for gun control came from more educated, higher paid liberals, who were non-hunters and owned no guns. He viewed the conflict as a largely symbolic struggle for status between competing social groups.

Tonso (1983, p. 330) suggested that the gun control debate is most accurately viewed as; "...a skirmish in the larger battle over the nation's cultural values, a battle in which 'cosmopolitan America' is pitted against 'bedrock America.'" Bruce-Biggs (1976, p. 61) framed the debate in terms of a cultural struggle and, "...a sort of low-grade war...between two alternative views of what America is and ought to be." Likewise, Utter and True (2000, p. 67) perceived a struggle between two social groups, both of which believe they are rational and mainstream, although the pro-gun culture is in decline as a result of increasing urbanization.

Recognizing that a cultural struggle could be an impetus for gun control allows insightful policy makers to sift through proposed policy interventions and determine which measures provide a harm reduction benefit, and which are designed primarily to make a symbolic statement. It is also important to understand that organized interests groups exert pressure on the political process and the media can mold public opinion concerning the issue.

Interest Groups

Organized interest groups on both sides of the issue exert pressure on the political process in an attempt to promote their agendas. The National Rifle Association views gun control as a threat to fundamental freedoms and the beginning of a slippery slope. Handgun Control Incorporated (now the Brady Campaign to Prevent Gun Violence) advocates gun control as sensible legislation that saves lives. Both groups are engaged in a struggle for

political supremacy and attempt to frame the issue in a manner favorable to their desired outcome (Callaghan & Schnell, 2001, p. 185). Rosen (2000, p. 53) portrayed the NRA on one side adamantly insisting on an inviolable and unlimited right to bear arms, while Handgun Control Inc., the Million Moms, and the New York Times “waive a bloody banner” following spectacular episodes of gun violence demanding more legislation.

According to Blendon, Young, and Hemenway (1996, p. 1722) the National Rifle Association made \$1,853,038 in contributions to political candidates for the 1994 campaigns. This was a ratio of 9 to 1 compared to Handgun Control Inc. Jacobs (2002, p. 66) cites a 10 to 1 ratio. Joslyn and Haider-Markel (2000, p. 360) found that proponents of a gun control initiative in Washington spent \$1.1 million while opponents of the legislation spent \$3.4 million (approximately 66% of this amount came from the NRA). The measure was defeated. Bachman and Paternoster (1997, p. 31) point out that between 1987 and 1993 the NRA contributed up to \$95,806 to individual senators. For those senators who received contributions, the lowest amount over the period was \$1,000.

Kleck and Kates (2001, pp. 206-207) claim that the NRA is a better organized lobbying organization than its opponents. Were the struggle based only on the involvement of the NRA and gun control advocacy groups, they believe the contest would be rather one sided. Yet, they insist that an analysis based solely of the amount spent by either side of the debate does not provide an accurate picture of the influences being exerted as the media is not neutral. For instance, examining a California handgun control referendum in 1982, they found that the NRA outspent the proponents of the legislation by a 3 to 1 margin. However, CBS News broadcast a 15 minute strongly antigun segment on the program *60 Minutes* only nine days prior to the referendum. This “free help” would have cost more than the entire amount spent by the NRA had it been purchased.

Certainly the lobbying efforts of both sides of the debate can influence political outcomes and rhetoric can play a large part in shaping policy. Yet, the role of media coverage also plays a significant role in framing the issue. After all, interest groups, politicians, and change agents require media assistance in order to relay their message to the public, increase the visibility of the issue, and garner support (Callaghan & Schnell, 2001, pp. 184-186).

The Media and Politics

Some contend that the media does not serve their idealized role as protectors of the public interest and champions of balance and objectivity. Rather, sensationalism and drama are often the focus in a ratings-driven environment. Events that lack drama and emotion may not be seen as “newsworthy” (Callaghan & Schnell, 2001, p. 186; Lott, 2003, p. 24). Creating moral panics and manipulating public fears can be tantamount to achieving political agendas. When sensationalized incidents of murder are presented as a policy priority, politicians may have little choice between supporting proposed legislation and appearing “soft on crime” (Chambliss, 2000, p. 168).

The news media often rely on government and law enforcement as sources of information. Organizational needs of news agencies require quick, regular information from legitimate sources. Besides being seen as authoritative and legitimate, government and law enforcement officials can provide timely, prepackaged messages (Beckett & Sasson, 2000, p.82). Not surprisingly, these messages often promote their own agendas.

For example, Baltimore County Police Department Colonel Leonard Supenski told reporters: “We’re tired of passing out flags to the widows of officers killed by drug dealers with Uzis” (cited in Kates & Polsby, 1995, p. 253). Yet, Kates and Polsby (1995, p. 253) contend that at that time only one officer had been killed by an Uzi and the incident occurred in Puerto

Rico rather than Boston. The impetus for the statement was to provide support for proposed assault weapons legislation.

Senator Dianne Feinstein told New York Times reporters that the Austrian made Steyr AUG was a favorite in drive-by shootings due to its lightweight and firepower. Subsequent investigation is said to have revealed that there was not a single recorded instance where this rifle was used in a drive-by shooting (Kates & Polsby, 1995, p. 253).

Overrepresentation of gun crime in news media can lead to public definitions that focus primarily on the harmful aspects of guns and their use in crime while ignoring their potential benefits. While the news and entertainment may not control how people think, it can certainly affect what they think about (Beckett & Sasson, 2000, p. 83).

Lott (2003, pp. 24-27) contended that an example of selective reporting can be found in the January 2002 shootings at Appalachian Law School in Virginia. Three students were killed by another student with a gun. The incident was reported in countries as distant as Nigeria and Australia and led to a clamor for more gun control. Four of 208 news stories retrieved through a Lexis-Nexis search revealed that the attack was actually stopped by students with guns. While precise information regarding the type and caliber of the gun used by the assailant were commonly provided, the majority of papers reported that the rampage was stopped by students who "pounced on" or "tackled" the perpetrator.

Lott (2003, pp. 40-41) also argued that one-third of *New York Times* gun crime stories and one-quarter of *Washington Times* gun crime stories are national stories from outside the New York and Washington areas. He complained that neither paper publishes defensive gun stories from outside their respective local areas, although defensive gun uses are reported in a number of local papers. He suggested that reporting practices such as these may be one reason

that urban residents are more likely to support gun control measures; they only receive news of the harmful effects of guns.

Lott (2003, pp.42-46) examined evening and morning news broadcasts from ABC, CBS, and NBC in 2001. He claimed that there were over 190,000 words on gun crimes, but only 580 words covering a single incident where an off-duty police officer stopped a school shooting. He could find no mention of any other defensive gun uses and none by civilians. Further, an incident where a child was killed in a tragic firearm related accident received coverage in 88 different news stories from Ireland to Australia and was reported in the *Chicago Tribune* and the *New York Times*. Another incident involving a 12-year old girl who shot and killed a man who had forced his way into her apartment and was choking the girl's mother was reported in three papers. The largest paper was the *Seattle Times*.

In October of 1997, assistant high school principal Joe Myrick stopped a shooting spree in Pearl, Mississippi in which two students were killed. He used a handgun to stop the attack. Lott (2000, p. 236) claimed that of 687 articles retrieved through a Lexis-Nexis search in the month following the attack, only 19 stories even mentioned Myrick, and slightly more than half mentioned that he used a gun.

In Edinboro, Pennsylvania, a school shooting was stopped after one teacher was killed. James Strand, who owned a nearby restaurant, stopped the attacker by holding him at gun point with a shotgun until police arrived. Lott (2000, p. 237) claimed that of 596 news stories retrieved through Lexis-Nexis, only 35 mentioned Strand and the gun use was ignored.

Other instances where killings were stopped by citizens with guns received little news coverage. When criminals kill innocent citizens it may be more dramatic and newsworthy than when citizens use guns to prevent murders, even when defensive deadly force is used. Lott

(2003, pp. 224, 237) finds it suspicious when the media is already covering a particular story and any reference to a defensive gun use is omitted as a matter of routine.

Callaghan and Schnell (2001, pp. 189-198; 201-202) examined news coverage of the Brady Bill and Assault Weapons Ban from 1988 to 1996. They gathered 403 ABC, CBS, and NBC evening news programs concerning these two legislative items. They also examined gun control passages from the *Congressional Record* and press releases from the NRA and Handgun Control Inc. These sources of information were then coded according to the dominant issue frames presented by the two interest groups. Their content analysis found that the dominant media theme was the "culture of violence," which focused primarily on gun violence among Blacks. The media presented pro-control frames in 70% of coverage, 14% were media generated themes, and 16% were anti-control frames. They concluded that the NRA was "...virtually locked out of the framing battle." Their interpretation of these findings was that although the personal bias of reporters may have had a role in the framing of the issue, ratings, economics, and reporter's interpretation of public opinion were more plausible explanations of the preferential coverage given to Handgun Control Inc. Emotional, dramatic stories of gun violence may simply lead to better ratings.

The effect of entertainment television may be difficult to ascertain. Murders in the entertainment media occur at a rate of about 1,000 times that of actual murders (Beckett & Sasson, p. 102). This can lead to a fear of criminal victimization and a belief that guns are needed for protection. Conversely, it can shape public opinion that guns are harmful and destructive and should be more strictly regulated.

While the media can influence public opinion, it should also be noted that public opinion may influence media coverage of the issue. The media may tend to adhere to public preference and base coverage on the desire to earn profits (Callaghan & Schnell, 2001, p. 187).

Whatever mechanisms are at work, it appears that a majority of the public favors stricter gun controls, a registration system, and requirements for a permit.

Public Opinion

Examination of any potential policy intervention should include a “force field analysis” designed to determine sources of resistance and support for a given course of action (Welsh & Harris, 1999, pp. 14; 59-60; 112). As will be illustrated in the following section, a review of public opinion lends credence to observations that minority extremism on the periphery can overwhelm a moderate majority electorate (Kleck & Kates, 2001, p. 110; Utter and True, 2000, p. 70; Watkins, 1997, p. 25; Wright et al., 1983, p. 4).

For example, Erskine (1972) noted that Gallup polls from 1938 until 1972 indicated a majority of Americans favor some type of gun control (although it is not clear what type of control based on the vagueness of the question). Likewise, Schuman and Presser (1978) found that a majority of Americans would favor a “police permit.” Wright, et al. (1983, pp. 218; 240-241) found that the majority of Americans supported handgun licensing and registration (dependent on cost). A majority also felt that they had a right to own handguns and opposed a total ban.

Blendon, et al. (1996, p. 1719) examined a number of polls. They found that although a majority of Americans opposed an outright ban and more than 60% of both owners and non-owners believed that stricter legislation would eventually lead to taking away all guns, a majority still favored permits and registration.

Kleck and Kates (2001, p. 111) also reported a consensus supporting gun control of some type for over sixty years. Poll data also indicate that a majority of Americans favored stricter gun control in 2001. Since 1938 a considerable majority has favored registration of all

handguns. Since 1975 a majority favored obtaining a police permit before purchasing a gun (Pastore & Maguire, 2002, pp. 151-155).

Findings such as these have led some to perceive a “gun control paradox,” where the public favors increased controls, but congress fails to act because advocates on the extreme pro-gun end of the spectrum create a perception of a majority through increased political activity, letter writing, and lobbying. Thus, a moderate center is manipulated by the fanatical edges in a tripartite debate (Kleck & Kates, 2001, pp. 111-113; Schuman & Presser, 1978, p. 432).

Apparently, extremists from both pro-gun and pro-control perspectives are in many ways responsible for preventing the coalescence of a coherent center and the development of rational, sound public policy (Kates, 1991, p. 116; Wright, et al., 1983, p. 4). Watkins, (1997, p. 251) warns of the “wedge” effect, wherein, those on the far edges of a policy debate distract attention from middle ground and abandon practical accomplishments in favor of principles carried to extremes.

Both pro-control and pro-gun extremists frequently work in a sort of unintentional collaboration to preclude the advancement of even the most innocuous control measures. Pro-control advocates create demeaning and degrading editorials, articles, and cartoons depicting gun owners in an unfavorable light. The gun lobby actually pays royalties for some of the more egregious variety for reprinting or republishing in pro-gun magazines (Kates, 1991, p. 117; Kleck & Kates, 2001, pp. 110-113).

Degrading material, which lampoons gun owners as sexually dysfunctional, terrorists, psychotics, retarded, rednecks, gun nuts, yahoos, and other negative stereotypes, serves as a useful tool in solidifying opposition to any control efforts. Media of this persuasion fosters a sentiment among gun owners that they are a “hated minority” and instills fear of ultimate gun confiscation by the “hate mongers.” As a result, even when gun owners personally believe a

particular measure is a reasonable step, they may still strongly oppose it. Thus, negative stereotypes of gun owners polarize viewpoints and preclude cooperation (Kates, 1991, p. 117; Kleck & Kates, 2001, pp. 110-113; LaFollette, 2001, p. 34; Rosen, 2000, p. 53; Utter & True, 2000, p. 70).

While a majority may favor increased controls, some may suggest that the Second Amendment precludes most or at least certain types of controls. A comprehensive examination of constitutional issues is beyond the scope of this paper. However, an overview of the constitutional debate should precede any attempts at policy recommendations or interventions.

CHAPTER TWO: CONSTITUTIONAL ISSUES

Second Amendment

“A well regulated Militia, being necessary to the security of a free state, the right of the people to keep and bear arms, shall not be infringed” (U.S. Constitution, Amendment II).

While the founding fathers no doubt found this language quite clear, today’s constitutional scholars disagree as to exactly what the Amendment means. The most contentious issue is the presence of the word “militia” in the introductory phrase. Does the Constitution guarantee an individual right or merely a collective right? In general, those involved in the debate subscribe to an individual/libertarian or collectivist interpretation. Each side regards the other side as revisionary (Barnett & Kates, 1996, p. 1210; Denning & Reynolds, 2002, p. 113; Etzioni, 2001; Gottlieb, 1982, p. 130; Kleck & Kates, 2001, pp. 24, 148; Yassky, 2000, pp. 590-591)

The Collective Rights Interpretation. Proponents of stricter gun control stress that the Amendment pertains only to a “collective right” of a “well regulated militia” and refers exclusively to today’s National Guard. The founders, it is argued, merely intended to protect a collective right of the state militias from encroachment by the federal government (Amar, 2002, p. 103; Cottrol & Diamond, 1991, p. 313; Goldberg, 2000, p. 55; Malcom, 1994, p. 136; Vernick & Teret, 1993, pp. 1773-1774; Yassky, 2000, pp. 597; 602-603).

The role of militias declined after the War of 1812, as they were largely disorganized, unprofessional, and ineffective. Standing armies have long replaced militias. Militias, it is argued, are an anachronism and no longer necessary for national security. According to this view, the Second Amendment provides no individual guarantees and only provides for the national defense (Utter & True, 2000, p. 71; Yassky, 2000, pp. 597; 602-603).

and impersonal murder of a relatively invulnerable victim from a distance, with reduced likelihood of a counterattack (Cook, 1991, p. 28; Gabor, 1995, p. 2001; McDonald, 1999, p. 12; Wells & Horney, 2002, p. 266). This capability combined with the greater lethality of a gun, in comparison to other weapons, makes confrontations inherently more deadly. Even if criminals substituted other weapons, in the absence of guns there would be a significant harm reduction. Fewer guns result in lowered death and injury rates (Clarke, 2000, pp. 5, 11; Cook, 1991; Cook & Leitzel, 1996, p. 98; Leitzel, 1998, p. 146; Loftin, McDowall, Wiersema, & Cottey, 1991, p. 1619; Utter & True, 2000, p. 74; Wright, et al., 1983, pp. 6, 123, 130; Zimring, 1995, p. 7).

Epidemiologists

According to Zimring (1993, p. 119) prior to 1980, medical research focusing on the relationship between guns and violent crime was scarce. However, this is no longer the case and firearm related death is now frequently regarded as a public health issue. Epidemiologists often place a greater emphasis on the relationship between firearms and suicide than traditional criminal justice research, where suicide has been largely neglected (Cook, 1991, p. 5; Zimring, 1993).

The epidemiological perspective rejects the compartmentalization that typically dominates discussion of firearms related death and injury. Rather than viewing gun violence as a crime problem, all firearms related injuries and death are viewed as a public health problem because they all stem from the same cause; discharge of a firearm. This approach treats firearm related death and injury through prevention and the elimination of a vector (Goldsmith, 1989, p. 676; Kellermann, et al., 1991, pp. 18-19; Somerville, 1994, p. 7). Dr. Christoffel (cited in Somerville, 1994, p. 7) states that, "Guns are a virus that must be eradicated. We need to immunize ourselves against them...Get rid of the guns, get rid of the bullets, and you get rid of the deaths."

Those advocating a collectivist argument link the placement of the Second Amendment with indications of the framer's intent. Because the Second Amendment immediately precedes the Third Amendment (concerned with the quartering of soldiers) and because the term "bear arms" is a distinctly military one, the framers are said to have been reinforcing the military significance of a collective right (Amar, 2002, p. 104; Yassky, 2000, pp. 618-621).

Proponents of this perspective concur that the original vision of the founders was of a militia comprised of the whole citizenry rather than a "select militia." However, the "well regulated" unorganized militia consisting of the body of the citizenry has vanished. Instead, responsibilities for defense have been assumed by the National Guard and Reserves. This perspective treats the Constitution as a continually evolving, living document. As the nation, technology, and our military and culture change over time, so must the interpretation of the Constitution and the Second Amendment (Cottrol & Diamond, 1991, pp. 315-318; Rabkin, 1995, p. 231; Yassky, 2000, pp. 596, 625, 628, 630, 648). Yet, Barnett and Kates (1996, p. 1226) note that those who argue that the Constitution is a living document typically do so in order to expand rather than contract individual liberties.

Amar (2002, p. 106) points out that, "America is not Switzerland. Voters no longer muster for militia practice in the town square." Additionally, it is argued that with today's modern technology, the use of small arms in warfare is rendered obsolete in comparison with more destructive weaponry such as Tomahawk Missiles, and fighter jets (Cottrol & Diamond, 1991, pp. 315-317; Gottlieb, 1982, pp. 138-139; Rabkin, 1995, p. 232).

When the constitution was written military and civilian weapons were essentially the same. Today, modern technology has created vastly more efficient and effective weaponry with longer ranges. These firearms were unlikely to have been envisioned by the framers and the

general public should not own some of the more destructive variety (Amar, 2002, p. 107; Cottrol & Diamond, 1991, pp. 315-317). In the words of LaFollette (2001, p. 34), "But most people, I think, would rather take their chances against government oppression than give every yahoo in the country the right to have a howitzer or tactical nuclear weapons."

The framers may have had good reason to fear a strong federal government. However, proponents of the collective rights perspective insist that the experience of the last two hundred plus years reveals that the Second Amendment is not as relevant a safeguard as it once was. Cautions against standing armies may seem as obsolete and anachronistic as the muskets used by the Minutemen (Amar, 2002, p. 107; Rabkin, 1995, p. 232).

Additionally, it is posited that the very nature of the Second Amendment precludes it being treated as the other portions of the Bill of Rights. When felons are released from prison they still have First Amendment rights. However, they are not permitted to own guns. This is not even a point of contention among those advocating an individual right. Presumably the reason is that guns are capable of inflicting greater harm than most words (Amar, 2002, p. 107).

The Individual Rights or Libertarian Interpretation. Those favoring an individual right or "libertarian" interpretation cite the latter portions of the Amendment, "...the right of the people to keep and bear arms, shall not be infringed" as evidence that the founders intended an individual right. Further, it is argued that the reference to a well regulated militia is merely a statement of purpose or intent and not intended to be a restrictive clause (Cottrol & Diamond, 1991, pp. 313-314; Funk, 1995, p. 776; Volokh, 1998b, p. 797).

Proponents of this position contend that the legal and "natural law" philosophical foundations upon which the founders based their understanding of government inclined them toward supporting an individual right. Influential philosophers of the period advocated an armed populace as a guarantee of democracy. The U.S. Constitution is derived in part from the

English Bill of Rights of 1689, which guaranteed an individual right to bear arms. Since American colonists already had an individual right to bear arms as Englishman, the founders would presumably have broadened rather than restricted that right. Further, next to Montesquieu, the most cited writer of the period and presumably the most influential on the founders was Blackstone. Blackstone was a proponent of an armed citizenry. (Cottrol & Diamond, 1991, pp. 320-323; Funk, 1995, pp. 785-786; Kleck & Kates, 2001, p. 345; Malcom, 1994, pp. 137-138; 142-143; Rabkin, 1995, p. 233; Snyder, 1993, p. 51; United States Senate, 1982, p. IX).

Blackstone (cited in Malcom, 1994, p. 143) referred to the right of citizens to be armed as an “auxiliary” right, which acted “to protect and maintain inviolate the three great and primary rights, of personal security, personal liberty, and private property.” Further, Blackstone (cited in Malcom, 1994, p. 143) contended that English subjects could expect:

“in the first place, to the regular administration and free course of justice in the courts of law; next to the right of petitioning the king and parliament for redress of grievances; and lastly to the right of having and using arms for self-preservation and defence.”

The very organization of the Bill of Rights is said to support an individual rights interpretation. The first nine amendments are rights of the people, with the rights of the state referenced in the tenth and clearly delineated from rights of the people. Additionally, “the people” are referred to in the First, Fourth, Ninth, and Tenth Amendments, each time in the context of an individual right (Barnett & Kates, 1996, p. 1201; Gottlieb, 1982, p. 121; Malcom, 1994, p. 162; United States Senate, 1982, p. VI).

Linguistically, proponents of the individual rights perspective insist that “well regulated” is not meant to imply government control, but well disciplined, trained, and prepared (Barnett & Kates, 1996, p. 1201). Volokh (1998b, p. 812) contends that “bear arms” does not have an

exclusively military connotation or refer to bearing arms only under state control. He points out that the constitutions of Indiana, Kentucky, Ohio, Pennsylvania, and Missouri guarantee individuals the right to bear arms for “defense of themselves and the State.”

Madison’s original notes are also cited as evidence that the Second Amendment was intended to provide an individual right. According to Barnett and Kates (1996, p. 1212) Madison’s notes for an address of the House of Representatives read: “Read the amendments- They relate 1st to private rights.” It is further argued that the earliest commentaries on the Bill of Rights were penned by men personally acquainted with Madison or others who helped forge the Bill of Rights. Among these authors were Virginia Supreme Court Chief Justice St. George Tucker, and William Rawle, who was offered the first Attorney Generalship by Washington. Tucker was a close friend of Madison and Jefferson. Rawle was a friend and correspondent of Jefferson. Each commentary described the Second Amendment as an individual right. Madison, Adams, Jefferson, and numerous other members of the First Congress of state legislators were still alive and would presumably have objected to these commentaries if they were in error, but reportedly did not (Barnett & Kates, 1996, pp. 1219-121; Gottlieb, 1982, pp. 122; 130-132; United States Senate, 1982, p. 7; Volokh, 1998a, p. 833).

Additionally, militias of the period were not strictly organized units or “select” militias, composed of a small group of salaried, semiprofessional volunteers (such as today’s National Guard). Instead, they consisted of all able-bodied men of the community who owned guns and could provide civil defense for their states. A select militia could be composed of members unrepresentative of the populace. Presumably, it was safer to trust the people to protect their liberty (Amar, 2002, p. 104; Cottrol & Diamond, 1991, pp. 329-331; Funk, 1995, p. 777; Gottlieb, 1982, pp. 115; 124-125; Malcom, 1994, pp. 150, 156, 163).

These citizen soldiers were required to *keep* and maintain their own weapons, much like today's Swiss military. Indeed, the Uniform Militia Act of 1792, passed one year after ratification of the Second Amendment, required every militia member (all able bodied citizens between eighteen and forty-five) to provide their own musket or firelock, ammunition, and a bayonet. Thus, the phrase "to keep" arms reveals that the people and not the government were responsible for providing arms for civil defense (Alstyne, 1994, p. 1242; Amar, 2002, pp. 103, 109; Barnett & Kates, 1996, p. 1201; Cottrol & Diamond, 1991, p. 331; Reynolds & Kates, 1995, p. 1750; United States Senate, 1982, p. VII; Volokh, 1998b, p. 803).

Militias were not subject to federal control because Anti-Federalists distrusted the federal government. Government oppression, standing armies, and foreign invaders were viewed as real dangers. If the federal government had control of the state militias, then it could restrict freedoms with little resistance. The Amendment was designed to protect the people from the government and not the reverse (Funk, 1995, pp. 777-778).

A report prepared by the Committee on the Judiciary, Subcommittee on the Constitution (U. S. Senate, 1982, p. 11) asserted that the National Guard is not the militia that the Second Amendment refers to. The National Guard is organized under Congress' power to "raise and support armies" rather than the power to "provide for organizing, arming, and disciplining the Militia." The report insists that the National Guard was never intended to be confused with the constitutional militia described in 10 U.S.C. 311(a). Advocates of this position also point out that 10 U.S.C. 311(a), still defines the militia as all able-bodied males between 17 and 45 years of age (Funk, 1995, p. 777; Reynolds & Kates, 1995, p. 1761; Volokh, 1998, p. 803).

Those supporting an individual right assert that a militia composed of the citizenry is still a viable protection against the threat of government tyranny. Even in the nuclear age, with its intercontinental missiles, and a modern battlefield dominated by technology, tanks, and

aircraft, the citizen soldier can deliver a good account. They cite numerous instances where revolutionaries armed primarily with small arms have defeated better equipped armies.

Vietnam, Cuba, Iran, and Nicaragua are offered as evidence that a determined people can depose a government which rules without their consent. Further, the experiences of the United States in Somalia, the Russians in Afghanistan, the British in Northern Ireland, and the Israelis in Palestine reveal that an all out war against an armed populace may be viewed as too costly, thereby forcing negotiations (Barnett & Kates, 1996, p. 1232; Gottlieb, 1982, pp. 138-139; Kates & Polsby, 1995, p. 250; Kessler, 1983, p. 395; Kleck & Kates, 2001, p. 351; Rabkin, 1995, p. 245).

Increased reliance on the National Guard coupled with the downsizing of the Armed Forces since the 1980's has made it more likely that substantial elements of the National Guard may be deployed during a serious contingency. As a result, an armed citizenry may still be useful. A similar scenario unfolded during WWII, when citizens using their privately owned weapons defended beaches and provided homeland defense (Barnett & Kates, 1996, p. 1229-1230).

Finally, it is argued that certain activities pertaining to gun ownership are not specifically outlined in the Second Amendment. Presumably this is because the framers did not perceive a need to address issues (such as hunting and self-defense), which they may have viewed as intrinsic rights and necessary for survival in a dangerous rural frontier culture. Settlers moved westward faster than government and necessarily provided for their own protection and sustenance. Further, there were no organized police forces at the time and this function also fell to the people (Funk, 1995, pp. 784-786).

In 1813, Kentucky enacted the first gun control law in the United States. The statute prohibited the concealed carrying of a weapon. The law remained in effect until 1822, when it

was ruled a violation of the state constitution (United States Senate, 1982, pp. 7-8). Since then, a number of states and cities have enacted a variety of gun control measures. The Supreme Court has ruled that these laws do not violate the U.S. Constitution. However, rather than providing closure, various aspects of Supreme Court decisions seem to have fueled the ongoing debate between an individual and collective right interpretation.

Supreme Court Decisions

The constitutional debate surrounding the Second Amendment is somewhat unique in that it has been primarily waged in the absence of a Supreme Court opinion (Cottrol & Diamond, 1991, p. 311). Nonetheless, advocates on either side apply differential interpretations to those rulings which have been made in order to support their position. On four occasions the Supreme Court ruled directly on the question of the Second Amendment. The relevant rulings are *United States v. Cruikshank* (1875), *Presser v. State of Illinois* (1886), *Miller v. State of Texas* (1894), and *United States v. Miller* (1939). Two additional cases, *Dred Scott v. Sandford* (1856), and *United States versus Verdugo-Urquidez* (1990) are cited as indirect evidence of the Court's interpretation of the Amendment.

Dred Scott v. Sandford (1856). The infamous Dred Scott case did not directly deal with the question of the Second Amendment, but rather ruled that African Americans were not U.S. citizens and could not be made U.S. citizens by any state. However, the Court stated that if Blacks were recognized as citizens they would have:

...full liberty of speech in public and in private upon all subjects upon which its own citizens might meet; to hold public meetings upon political affairs, *and to keep and carry arms wherever they went* [emphasis added].

For some this suggests that the Court was recognizing that individual citizens have a right to keep and bear arms (U.S. Senate, 1982, p. 8). However, this is dicta and not binding on any court.

United States v. Cruikshank (1875). Ironically, the party bringing the first Second Amendment case before the Supreme Court was the federal government (Cottrol & Diamond, 1991, p. 347). In *Cruikshank*, the government charged that William Cruikshank and his accomplices violated the Constitutional rights, including Second Amendment rights, of two black men. In regards to the Second Amendment, *United States v. Cruikshank* (1875) ruled that:

This is not a right granted by the Constitution. Neither is it in any manner dependent upon that instrument for its existence. The second amendment declares that it shall not be infringed; but this as has been seen, means no more than that it shall not be infringed by Congress.

For some scholars, the first portion of the Court's ruling recognized a fundamental, natural, inalienable, and inviolable right that predates the Constitution and was not granted by it (Barnett & Kates, 1996, p. 1172; Funk, 1995, p. 798; Snyder, 1993, pp. 54-55). Others confine their analysis to the second part of the decision, emphasizing that only the federal government is precluded from infringing on a right to bear arms (Vernick & Teret, 1993, p. 1774).

Presser v. State of Illinois (1886). In this case, Herman Presser led a group of 400 men armed with rifles through the streets of Chicago. Because he did not have a license from the governor he was fined \$10. Presser argued that his Second Amendment rights had been violated. The Court affirmed the earlier *Cruikshank* ruling, stating that the Second Amendment "is a limitation only upon the power of congress and the national government, and not upon that of the state."

Since *Presser*, the Second Amendment has not been incorporated under the Fourteenth Amendment. Some argue that this leaves states and municipalities free to enact whatever restrictive gun controls they deem necessary (Vernick & Teret, 1993, p. 1774; Yassky, 2000, p.

589). However, Alstyne (1994, pp. 1252-1253) contends that the Fourteenth Amendment actually *did* incorporate the Second Amendment.

In 1866, describing the “privileges and immunities of citizens” portion of the Amendment for the U.S. Senate on behalf of the Joint Committee on Reconstruction, Michigan Senator Jacob Meritt Howard (cited in Alstyne, 1994, p. 1252) noted that once the Amendment was approved and ratified, it would preclude the States from infringing upon:

the personal rights guarantied and secured by the first eight amendments of the Constitution: such as the freedom of speech and of the press; the right of the people peaceably to assemble and petition the Government for a redress of grievances, a right appertaining to each and all the people; the right to keep and to bear arms,...”.

In his closing remarks, Senator Howard (cited in Alstyne, 1994, p. 1252) also observed, “The great object of the first section of this amendment is, therefore, to restrain the power of the States and compel them at all times to respect these fundamental guarantees.” According to Alstyne (1994, p. 1252) there was no repudiation of this statement of intent prior to ratification.

Alstyne (1994, p. 1253) emphasizes that the reference to the right to bear as a personal right. He also finds it strange that the Second Amendment would not be incorporated in the Fourteenth Amendment, when state laws rendered Blacks defenseless against attacks by night riders. They were not even safe in their own homes.

While ruling that the Amendment applied only to the federal and not state government, the Court in *Presser v. State of Illinois* (1886) also ruled that:

It is undoubtedly true that all citizens capable of bearing arms constitute the reserved military force or reserve militia of the United States as well as of the states, and, in the view of this prerogative of the general government, as well as of its general powers, the states cannot, even laying the constitutional provision in question out of view, prohibit the people from keeping and bearing arms, so as to deprive the United States of their rightful resource for maintaining the public security, and disable the people from performing their duty to the general government.

This verbiage may suggest that the Court recognized an individual right that the states cannot violate (Gottlieb, 1982, pp. 133-134).

Miller v. State of Texas (1894). In *Miller v. State of Texas (1894)*, the Supreme Court ruled that a state law forbidding the carrying of a dangerous weapon did not violate the Second or Fourteenth Amendments. The decision, reinforcing the earlier Cruikshank and Presser cases, stated that "...it is well settled that the restrictions of these amendments operate only upon the federal power, and have no reference whatever to proceedings in state courts." However, it may also be argued that this case provided support for an individual rights interpretation (Cottrol & Diamond, 1991, p. 310). A portion of the ruling refers to a "right of the people to keep and bear arms" with no reference to a requirement for militia involvement.

United States v. Miller (1939). In the only case involving the Second Amendment during the last century, *United States v. Miller (1939)*, Jack Miller and Frank Layton were charged with unlawfully transporting an unregistered sawed-off shotgun from Oklahoma to Arkansas in violation of the National Firearms Act of 1934. The lower district court in Arkansas determined that the 1934 Act was unconstitutional. The Supreme Court in *United States v. Miller (1939)* reversed the lower court's decision stating that:

In the absence of any evidence tending to show that possession or use of a 'shotgun having a barrel of less than eighteen inches in length' at this time has some reasonable relationship to the preservation or efficiency of a well regulated militia, we cannot say that the Second Amendment guarantees the right to keep and bear such an instrument. Certainly it is not within judicial notice that this weapon is any part of the ordinary military equipment or that its use could contribute to the common defense.

Further, in *United States v. Miller (1939)* the Court noted that:

With obvious purpose to assure the continuation and render possible the effectiveness of such forces the declaration and guarantee of the Second Amendment were made. It must be interpreted and applied with that end in mind.

Some have interpreted this decision as evidence that there is no individual right to keep and bear arms, only a collective right that must be connected to a "reasonable relationship to the preservation or efficiency of a well regulated militia." Because Miller was not a member of the militia, the Second Amendment did not apply to his case (Vernick & Teret, 1993, p. 1775).

Others dispute this position, and insist the Court was actually recognizing an individual right. The defendants absconded following dismissal of their case by the lower court. The Government was the only party to appear or file a brief. This brief contended that the Second Amendment was only a collective right. Yet, the Supreme Court appears to have rejected this argument by acknowledging Miller's standing. If the collective right position advocated by the government had been accepted, the Supreme Court would never have heard the case because Miller was neither a state nor a member of the National Guard (Barnett & Kates, 1996, pp. 1153-1154; Denning & Reynolds, 2002, pp. 116-117; 120; Funk, 1995, p. 782; Kates, et al., 1995, p. 587; U.S. Senate, 1982, p. 10).

Further, it is argued that the reasoning presented in the case is hard to follow for at least two additional reasons. First, the 1934 Act required registration not only of sawed-off shotguns, but machine guns as well. That machine guns have a military use would have certainly been difficult to refute. Although a Court confines its ruling to the case at hand, some have argued that it is illogical that the Court would uphold one portion of the statute (relating to sawed-off shotguns), while at the same time creating a rule that would have negated another portion of the same statute (relating to machine guns) (Denning & Reynolds, 2002, pp. 119-120; Funk, 1995, p. 781; Yassky, 2000, p. 666).

Second, following the reasoning of the ruling to its logical conclusion would indicate that only the most destructive of weapons, those with a well defined military use (such as rocket

launchers, claymore mines, and howitzers) were afforded any Constitutional protection. It is difficult to imagine that this is what the Court intended. The Court may have simply been indicating that it was unaware of any military utility of shotguns with short barrels. However, these weapons have been used in military applications (Denning & Reynolds, 2002, pp. 119-120; Funk, 1995, p. 781; Yassky, 2000, p. 666).

Finally, in several places the Court indicates an understanding of the concept of an unorganized militia composed of citizens providing their own weaponry. For example the ruling states that the militia consisted of "...all males physically capable of acting in concert for the common defense." The Court further points out that "...when called for service these men were expected to appear bearing arms supplied by themselves and of the kind in common use at the time." This is viewed by some as support for an individual right (Gottlieb, 1982, p. 115).

U.S. v. Verdugo-Urquidez (1990). Like *Dred Scott v. Sandford*, the case of *U.S. v. Verdugo-Urquidez (1990)* did not directly address the question of the Second Amendment. However, some scholars (through dicta) view observations of the Court as support for an individual rights interpretation. The verbiage "the people" in the context of the First, Second, and Fourth Amendments is referred to by the Court as a "term of art" used to indicate an individual right (Barnett & Kates, 1996, p. 1157; Funk, 1995, p. 782; Kates, et al., 1995, p. 532; Kleck & Kates, 2001, p. 344).

In summary, the Court has consistently failed to apply Second Amendment protections as restricting state action. The question of whether the Second Amendment is an individual or collective right is still a matter of debate among historians and legal scholars. Apparently, Supreme Court decisions have not been adequately specific to resolve this discourse. Perhaps a future Court will resolve the issue. Still, considering the tenacity with which opposing viewpoints are held, it is doubtful that even this would be enough to bring the issue to a

conclusion. Jacobs (2002, pp. 56, 163, 223) points out that many Americans *believe* they have a right to keep firearms. Even if a future Supreme Court ruling rejected the individual rights interpretation, some would probably regard the ruling as incorrect. Of course, the same scenario is also plausible with those favoring a collectivist argument. Further, the Court is not infallible, and has been known to reverse itself on some issues (e.g. capital punishment). Therefore, even if a ruling was forthcoming, it could change years later.

The Subcommittee on the Constitution, Committee on the Judiciary, United States Senate (1982, p. 11) concluded that the Second Amendment is an individual and not a collective right. Yet, even if the Second Amendment does provide an individual right, it would not necessarily mean that “reasonable” controls could not be implemented. For example, Amar (2002, p. 111) insists that even if the Constitution protects an individual right, a firearms registration system, mandatory training requirements, and the issuance of permits would not infringe upon that right. He contends that the framers realized that the government would know who had guns; every voter. Further, as part of their militia training they would have to be competent in the use of that weapon and were required to present it in serviceable condition on occasion. Jacobs (2002, p. 57) agrees that an individual rights interpretation does not preclude the imposition of *any* limitations on the right to bear arms. No one debates the constitutionality of free speech, yet we still recognize the desirability of some controls.

The American public seems about equally divided on the constitutionality of stricter firearms legislation. One study found that 48% of all Americans and 55% of gun owners believe that enacting such laws would violate the Constitution (Blendon, et al., 1996, p. 1721). Yet, in 1993, 1999, and 2000 a significant majority of respondents indicated that they believed that controlling gun ownership was more important than protecting the right to own guns (Pastore & Maguire, 2002, p. 150).

CHAPTER THREE: FEDERAL FIREARMS LEGISLATION

Summary of Current Federal Gun Control Legislation

State and local gun control legislation vary tremendously. Several states implement measures that are much more restrictive than federal regulations. Often, claims makers opposed to gun control will use comparisons between states to suggest that gun control is not effective. Vermont is a state with no gun control restrictions beyond those required by the federal government and has one of the lowest murder rates in the nation (Christie, 1999, p. 98; Lott, 2000, p. 31; Malcom, 2002, p. 221).

At the same time, cities such as Chicago, New York, and Washington, D.C. have some of the strictest gun control legislation, but also some of the highest rates of murder and firearms appear to be easily obtainable. However, gun control proponents argue that for any type of control to be meaningful, it would have to be federally legislated. Otherwise, state legislation could be subverted by conducting transactions in nearby states where laws differ (Adler, et al., 1994, p. 1281). Because of the myriad of state and municipal laws and a consensus that state and municipal legislation can be rather easily subverted, the following section will concentrate on federal legislation.

The National Firearms Act of 1934. The National Firearms Act (NFA) of 1934 is often considered the first significant federal firearms legislation. An earlier 1927 law prohibited the mail transfer of handguns between private individuals. However, this act applied only to the U.S. postal service and private carriers were unaffected (Jacobs, 2002, p. 20).

Prohibition and the resultant increase in firearms violence led Congress to enact the National Firearms Act (NFA) of 1934. The 1934 Act mainly pertained to sawed-off shotguns or rifles (barrel length less than 18") machineguns, submachine guns, silencers, hand grenades, and

other destructive devices viewed as gangster weapons. These firearms could not be transported between states, were subject to registration, and a two hundred dollar tax (a substantial cost in 1934) was levied on ownership of these weapons. Additionally, manufacturers were required to affix serial numbers on firearms and maintain production records. The Internal Revenue Service (later the BATF) was required to maintain the National Firearms Registration and Transfer. Whether or not the intent was a ban, ownership of machine guns and sawed-off shotguns was virtually eliminated (Cook & Leitzel, 1996, pp. 100, 106, 108; Funk, 1995, p. 780; Jacobs, 2002, pp. 20-22; Vernick & Teret, 1993, p. 1775; Yassky, 2000, p. 662).

The Federal Firearms Act of 1938. This legislation created the federal licensing system for dealers. Dealers were required to maintain records of their sales, but were only precluded from *knowingly* transferring a firearm to an ineligible purchaser. There was no requirement to verify the purchaser's identification. Private parties were also prohibited from knowingly transferring firearms to ineligible parties. This legislation also criminalized transfer of stolen firearms or those with their serial number removed. Prohibited classes of purchasers included those under indictment, convicted of a violent felony, and fugitives from justice. These prohibited classes were expanded under the Gun Control Act of 1968 and subsequent legislation (Jacobs, 2002, pp. 22-23).

The Gun Control Act of 1968. Restrictive legislation is frequently implemented in the aftermath of particularly shocking and well-publicized incidents of gun violence. Following the assassinations of President Kennedy (who was killed by a mail order weapon), Robert Kennedy, and Martin Luther King, Congress established the Gun Control Act of 1968, which had languished in Congress for the preceding five years (Jacobs, 2002, pp. 23; 61-62; Kopel, 1992, pp. 340, 344; Rosen, 2000, p. 48; Watkins, 1997, p. 251).

While these high profile murders may have been the impetus for the legislation, the Act may also have been a response to civil unrest, riots, and the political threat of increased militancy within the Black community. Groups such as the Black Panther Party were openly carrying guns. Congress may have assumed that banning the mail order sale of cheap, surplus, imported military weapons would eliminate the gun supply to the Black community without interfering with firearms acquisition by more affluent Whites (Kessler, 1983, pp. 392-394; Kleck, 1996, pp. 400-401).

Rosen (2000, p. 48) characterized the 1968 legislation as “something of a catch-all.” The Gun Control Act placed additional restrictions on particular types of firearms exchanges and established expanded criteria that precluded additional groups from gun ownership. Importation of firearms was restricted to those principally designed for or adaptable to sporting purposes (Bice & Hemley, 2002, p. 251). The requirement for firearms dealers to obtain a Federal Firearms License (FFL) and record serial numbers of all firearms sold as well as purchase information for every transaction was reiterated, as was the manufacturer’s responsibility to affix a serial number to all firearms (Cook & Leitzel, 1996, p. 93; Jacobs, 2002, p. 24; Rosen, 2000, p. 48).

This federal law prohibited the sale of rifles, shotguns, and handguns to non-residents of the state of transaction. Mail order transfer of *all* firearms was limited to FFL dealers. The prohibited classes covered by the Federal Firearms Act of 1938 were expanded to include drug users, addicts, or anyone who had been committed to a mental institution or designated as a “mental defective.” Additionally, those under the age of 18 could not purchase long gun and those under the age of 21 were not permitted to purchase a handgun. Of course, violations of the legislation were a felony offense (Cook, Molliconi, & Cole, 1995, p. 66; Cook & Leitzel, 1996, p. 93; Jacobs, 2002, p. 25; Jacobs & Potter, 1995, pp. 94-95).

Although limiting the importation of firearms to those designed for or adaptable to sporting purposes, the Gun Control Act of 1968 was specifically designed to prevent unnecessary interference with firearm ownership for purposes of hunting, sport, and personal protection. It was not meant to place an undue financial burden on manufacturers, dealers, or citizens (Bice & Hemley, 2002, p. 256; Funk, 1995, p. 767). However, the 1968 Act prohibited the importation and sale of cheaply constructed, readily concealable handguns known as "Saturday Night Specials" (Bice & Hemley, 2002, p. 254).

Some believe the legislation had a racist bias and was designed more to control Blacks than to control guns (Funk, 1995, p. 799). The very term "Saturday Night Special" is derived from the racist term "nigger-town Saturday night" (Bruce-Briggs, 1976, p. 50; Cook, 1981, p. 1736; Funk, 1995, p. 800; Olson & Kopel, 1999, pp. 405-406). Still, none of the provisions seem unreasonable and it would be hard to argue against measures which prevent unidentified individuals from receiving guns through the mail on this basis alone.

Congress broadened the prohibited categories of the 1968 Gun Control Act in 1987. Illegal immigrants, dishonorably discharged veterans, or anyone who renounced their American citizenship or was under a restraining order became ineligible to purchase a gun. Licensed dealers were required to obtain a written assurance that the purchaser was eligible ("Statement of Intent to Purchase a Firearm" or BATF Form 5300.35). No other verification of the information was required other than confirmation of in-state residency and age. Private sellers could not knowingly conduct transactions with individuals falling under these proscribed categories (Jacobs, 2002, p. 78; Jacobs & Potter, 1995, p. 95).

The Firearms Owners' Protection (McClure-Volmer) Act of 1986 (FOPA). The 1968 Gun Control Act was amended by the Firearms Owner's Protection Act of 1986. The intent of the 1986 Act was to reinforce the position that Congress did not intend the 1968 Act to unduly

impose upon law-abiding dealers or gun owners. The Bureau of Alcohol Tobacco and Firearms was prohibited from conducting more than one inspection of a dealer per year. The 1986 Act also prohibited the establishment of a national system of gun registration. Record keeping responsibilities were made less arduous, and limited interstate rifle and shotgun sales were permitted. The 1986 Act also established a mens rea requirement for prosecutions under the Gun Control Act. However, this legislation also prohibited manufacture and transfer of new automatic weapons covered by the National Firearms Act of 1934 for private citizens (Bice & Hemley, 2002, p. 257; Cook, et al., 1995, pp. 74-75; Jacobs, 2002, pp. 21, 28, 49, 125, 146).

Any future legislation aimed at the establishment of a national system of gun control or enforcing safe storage would necessarily negate this legislation. Of course, gun control opponents would use such action as evidence of a “slippery slope,” which will be discussed in further detail later.

The 1986 Law Enforcement Officers Protection Act and The Undetectable Firearms Act of 1988. The 1986 Act prohibited manufacturing, importing, or selling bullets that were armor piercing. The legislation was a response to concerns over “cop-killer” bullets. Bullets fabricated from seven types of metals were prohibited. The 1988 Act mandated similar prohibitions for firearms that were not discernable by metal detectors or X-rays (Kleck, 1997, pp. 128-129; Jacobs, 2002, p. 29).

The Brady Law. In 1981, President Ronald Reagan was the target of an assassination attempt. James Brady, the president’s press secretary, was seriously injured in the attack. Interest groups led by Handgun Control Inc., began a concentrated lobbying campaign in order to pass more stringent gun control laws. The intent of this legislation was to require a background check and a “cooling off” period prior to handgun purchases (Rosen, 2000, p. 48).

This legislation was based on two assumptions. First, ineligible personnel (those prohibited by the 1968 Gun Control Act) could purchase firearms from licensed dealers simply by lying about their eligibility. Second, delaying purchases would prevent murders by allowing enraged individuals to gain control of their anger. Sarah Brady, the wife of James Brady, began assisting the organization in 1985. In 1987, the "Brady Bill" was introduced and defeated in the 100th Congress. Brady was subsequently unsuccessfully reintroduced in the 101st and 102nd Congress. On November 25, 1993, the Brady Handgun Violence Prevention Act became law after nearly seven years (Jacobs, 2002, p. 62; Jacobs & Potter, 1995, pp. 97-98).

The Brady Act was implemented on February 28, 1994. The legislation was applicable to states which did not have preexisting requirements at least as stringent. In 18 states, Brady had no impact. It existed as an interim system until November 30, 1998 when the National Instant Criminal Background Check System (NICS) became operational. Under the interim system, dealers were required to obtain a photograph ID and a completed "Brady" Form (BATF Form 4473). If the Federal Firearm Licensed (FFL) dealer believed the identification was correct, they were to provide the application to the Chief Law Enforcement Officer (CLEO) (who was appointed by the state for each jurisdiction) within one day. The law prevented the CLEO from maintaining records of the sales and consequently precluded the development of a national firearms registry (Bureau of Justice Statistics, 2001, p. 2; Jacobs, 2002, pp. 79-80; Jacobs & Potter, 1995, p. 97).

The CLEO had up to five days to conduct the background check. The interim provisions applied only to the provision of handguns. States were given latitude in implementing "interim" Brady. They could fulfill federal requirements by an instant check or a permit. As a result, the "cooling off" aspect of the legislation was negated (Bureau of Justice Statistics, 2001, p. 2).

Once the National Instant Criminal Background Check System (NICS) became operational, the permanent provisions of Brady were implemented. FFL dealers were also required to initiate checks on long gun purchases. With the implementation of NICS, the FBI or a state point of contact who conducts the checks replaced the role of the CLEO. The Brady Act permitted up to three days to process a background inquiry under NICS. However, state law was not usurped and individual states could mandate a longer waiting period if desired (Bowling, Lauver, Gifford, & Adams, 2001, p. 1; Bureau of Justice Statistics, 2001, p. 2). The National Criminal History Improvement Program is a grant program established by the Brady Act. It helps states maintain criminal history databases and their links to NICS. The cost of NCHP was over \$314 million (Bowling et al., 2001, p. 7).

A private contractor is responsible for the operation of NICS. The NICS headquarters is located in Clarksburg, West Virginia. Two additional NICS sites are in Uniontown, Pennsylvania and Moundsville, West Virginia. These NICS sites are staffed 17 hours per day throughout the week. Presently, 34 states use NICS to accomplish the background check requirement (Jacobs, 2002, pp. 95-97).

FFLs in these states contact an 800 number which is forwarded to one of the NICS sites. Approximately 70% of calls go to the Uniontown, Pennsylvania site and 30% to Moundsville, West Virginia. In the event additional resources are required, the headquarters site in Clarksburg can also route calls. Searches conducted through NICS can access 34.7 million criminal records, 700,000 wanted person records, and 940,000 prohibited person records. Roughly 95% of all checks take less than two hours, and 70% require less than 30 seconds. The remaining 16 states utilize POC systems which are more comprehensive, as they augment NICS searches with information contained in state databases (Jacobs, 2002, pp. 95-97).

After the Brady legislation was implemented, Congress expanded the categories of those who were prohibited from firearms purchase or possession. In 1995, anyone under a domestic violence, stalking, or harassment restraining became ineligible. In 1997, those who had a misdemeanor domestic violence conviction were added to the prohibited class (Jacobs, 2002, p. 31).

Finally, it should be noted in *Printz v. United States* the Supreme Court ruled that the interim requirements of Brady were unconstitutional under the Tenth Amendment and a violation of the “dual sovereignty” principle (Jacobs, 2002, p. 89). The court ruled that Congress could not force local CLEOs to assume responsibility for a federal program. While this case has no bearing on operation of the present system under NICS, it does suggest that any additional federal legislation such as a licensing or registration system could not be delegated to local authorities and would have to be overseen by a federal bureaucracy (Jacobs, 2002, pp. 94, 98).

The Crime Control Act of 1994. In 1989, a semi-automatic rifle was used in a shooting spree at Stockton Elementary School in California. In addition to this highly publicized event, media coverage of firearm violence stemming from gang and drug wars fueled a public belief that “assault weapons” were frequently a favorite weapon of gangsters and often used in homicides. This publicity provided effective ammunition for those advocating stricter control of specific types of weapons (Kates & Polsby, 1995, p. 254; Roth & Koper, 1999, p. 1; 2001, p. 38).

Title XI, Subtitle A, of the Federal Violent Crime Control and Law Enforcement Act of 1994 (commonly referred to as the Crime Control Act) was implemented to eliminate certain types of weapons that were presumably more dangerous to the public. Magazine capacity was restricted to ten rounds. The sale, manufacture, and possession of certain named firearms, as

well as semi-automatic rifles, shotguns, and handguns having a combination of at least two prohibited characteristics were prohibited. For example, semi-automatic rifles with two or more military type features (a bayonet lug, collapsible stock, pistol grip, and a flash hider or threaded barrel) were banned. "Grandfathered" magazines and firearms manufactured prior to September 13, 1994 were unaffected by the ban (Jacobs, 2002, pp. 31-32; Roth & Koper, 1999, pp. 1; 4; 2001, pp. 33-35; 2002, pp. 241-242). Appendix A describes the use of these characteristics in further detail.

Supporters of assault weapon bans believed that a weapon's capability to fire a large volume of rounds in a short amount of time made these "assault weapons" more deadly (Roth & Koper, 1999, p. 1; 2001, pp. 33; 38-39). These firearms were also considered by claims makers to have no legitimate purpose. Rosen (2000, p. 52) explained that Handgun Control Inc. scoffed at the utility of owning an "assault weapon" by questioning whether one needed an AK-47 to go duck hunting.

Evaluation of Current Policy

The Gun Control Act of 1968. Jacobs and Potter (1995, pp. 98-99) assert that there are fundamental problems with some of the categories of exclusion under the 1968 Gun Control Act and the subsequent Brady Law. First, no delineation was made between violent and non-violent felonies, and there is no indication of a timeframe. Felony thefts occurring 50 years earlier would be the basis for exclusion. The term "drug user" is also uncertain. How recently must the use have been? These authors point out that the BATF interprets the law to mean "current evidence of use." The National Institute on Drug Abuse defines a drug user as one who has used drugs in the last month. By these definitions, one could legally purchase a gun one day, but not the next. Defining these categories is largely left to the states (Bureau of Justice Statistics, 2001, p. 5).

Funk (1995, pp. 768-769) questioned the logic behind the 1968 Gun Control Act ban on the importation of "Saturday Night Specials." Besides his views on the racial bias of this type of legislation, Funk claims that the cheap construction of these weapons allowed a greater escape of primer residue and created an increased potential of cylinder misalignment marks. Thus, crimes committed with these handguns would actually facilitate forensic examination and *increase* the likelihood of a perpetrator being linked with a crime.

Presumably, these weapons were restricted because the softer metal facilitated the removal of serial numbers and made the guns more difficult to trace when analyzing ballistics, as peculiarities in the metal wore more quickly. Funk (1995, pp. 768-769) questioned both of these claims as well. He contended that the wearing of the metal through repeated firing is unlikely, as these cheaper handguns will rarely be discharged (they are not designed for sport and target firing). Additionally, the cheap construction of these firearms leads to greater irregularities, which aids ballistic examination. Removing serial numbers from these guns is slightly easier, but requires no additional tools. Removal of serial numbers is also a clear indication to law enforcement personnel that the possessor of the handgun is involved with or intent on criminal activity. This practice is a federal offense.

The 1986 Law Enforcement Officers Protection Act and The Undetectable Firearms Act of 1988. The legislation prohibiting armor piercing bullets may have been problematic in its initial incarnation. Many types of bullets, such as ordinary ammunition fired from hunting rifles can easily penetrate police body armor. The NRA voiced concerns to legislators that the initial proposed legislation may have negative externalities, such as making it uncertain whether normal hunting ammunition was affected. The final legislation seems to have satisfied all parties. However, there were no documented cases where a police officer was murdered when a

“cop killer bullet” fired from a handgun perforated their vest (Jacobs, 2002, p. 29; Kleck, 1997, p. 129; Kleck & Kates, 2001, pp. 177; 184-185; 208).

The Undetectable Firearms Act of 1988 is unusual in that no such firearms existed. The concern seems to have been generated over the introduction of the Austrian manufactured Glock semi-automatic pistol, which has a polymer frame with steel inserts. This handgun is readily detected by both X-ray machines and metal detectors (the same type of handgun is currently used by the San Antonio Police Department and the UTSA Campus Police). Testimony by officials of the Bureau of Alcohol Tobacco and Firearms and the Federal Aviation Administration before Congress revealed that there were no “non-metal” guns undetectable by x-rays in production and that no such gun could be produced with currently existing technology (Kleck, 1997, pp. 128-129; Jacobs, 2002, p. 29; Kleck & Kates, 2001, pp. 185, 208; Kopel, 1992, p. 116). Perhaps the proponents of the legislation were practicing foresight and were concerned over the possibility for future technological advances. Alternatively, the legislation may have stemmed from a moral panic stimulated by a sensationalist media and opportunistic politicians

The Brady Law. The Brady Law has prevented some ineligible persons from purchasing guns. The Firearm Inquiry Statistics program monitors the numbers of firearms transfer applications and rejections resulting from background checks. From 1994 to 2000, 2.3% of firearms transfer applications (689,000) were rejected. Over half of these rejections were because the applicants were convicted felons or were under felony indictment. A crime fighting benefit of the background check was that prospective buyers who had outstanding warrants could be traced and arrested by the police. In Virginia, 775 individuals were arrested after attempting to purchase a firearm (Bowling et al., 2001, pp. 1, 6).

Although Brady seems to have prevented firearm transfers to ineligible persons in the legal market, it is uncertain how the legislation has affected the secondary market, or exchanges which do not involve a federal firearms dealer. It is the secondary market where the majority of firearms used by criminals are obtained (Cook, et al., 1995, pp. 60, 68, 70; Wright, 1995, p. 65). In 1997, 80% of state inmates obtained their gun through a street buy, an illegal source, a friend or family member (Harlow, 2001, p. 1). The situation was similar in 1986, when the National Institute of Justice reported that 5 of 6 felons acquired their gun through theft or the secondary market (Jacobs, 2002, pp. 101-102; Jacobs & Potter, 1995, p. 103). The Brady Act placed no restrictions on private transactions (Bowling et al., 2001, p. 1; Jacobs, 2002, p. 99).

Interestingly, Jacobs and Potter (1995, p. 102) stated that the Brady Law would not have prevented the President and James Brady's assailant, John Hinkley Jr., from obtaining a firearm. The handgun used in the incident was legally purchased five months earlier. Hinkley had purchased at least five handguns within the previous year. At the time the incident occurred, Hinkley had not been certified as mentally defective, had not been committed to an institution, and did not fall under any of the other prohibitive categories. His request for a purchase would not have been denied.

No legislation can stop every incident and arguing against Brady on this basis would be unsound. However, besides its lack of control over the secondary market Brady does appear to have some additional weaknesses. For example, NICS is incapable of providing information concerning ineligibility when the potential purchaser is an illegal alien, drug addict, or mental defective. FFLs are free to transfer "personal" firearms without a background check. Brady also appears to be easily defeated through the use of fraudulent identification credentials and straw purchases. Overcoming these weaknesses is problematic because privacy concerns make access to medical information difficult and in many states legislation protects the confidentiality

of medical records. Additionally, it would appear to be virtually impossible to ever totally prevent straw purchases or informal transfers (Jacobs, 2002, p. 96; 106-108; 125, 128; Snyder, 1993, p. 45).

The Crime Control Act of 1994. Evaluating the 1994 Crime Control Act is another matter. First, although exact duplicates of “assault weapons” were prohibited, manufacturers simply adjusted the firearm to make it legal or “sporterized” (Roth & Koper, 1999, p. 2; 2001, p. 35; 2002, p. 242). Removal of the flash suppressor and bayonet lug, for example, would make an AR-15 legal. As a result, the value of the firearm was reduced for collectors, but the weapon remained equally efficient for those who would use it irresponsibly. Gun control opponents may point out that the ability to remove these items and have a firearm that is not impacted by the legislation, and is essentially the same as a semi-automatic hunting rifle (albeit it more “dangerous” looking) demonstrates the symbolic nature of the law (Jacobs, 2002, p. 32).

For example, a semi-automatic hunting rifle and semi-automatic “assault rifle” may be indistinguishable in regards to rates of fire, caliber, and mechanical operation. Some suggest that cosmetics are the crux of the issue. Bayonet lugs and pistol grips don’t make guns more suitable for crime, but they do make a gun look militaristic (Kates & Polsby, 1995, p. 254; Jacobs, 2002, p. 32). Kates and Polsby (1995, p. 254) see the law as, “... a nearly immaculate example of legislation as a form of pure cultural spite - a point that has hardly been lost on those who have been subjected to its strictures.”

Another criticism of this legislation is that these guns were seldom used in crimes. Estimates vary between less than 1% and 8% of all gun crimes depending on the source and definition used. Perhaps the most accurate assessment is that roughly 2% of gun crimes involved an assault weapon (Kates & Posby, 1995, pp. 253-254; Olson & Kopel, 1999, pp. 407, 412; Roth & Koper, 1999, pp. 1, 8; 2001, p. 44; 2002, p. 242). Their use in highly publicized

cases and representation in the media as a favorite of criminals and drug cartels contributed to an image that they were somehow more dangerous than similar weapons (Olson & Kopel, 1999, p. 406; Roth & Koper, 2002, p. 242).

Proponents of gun control will point out that the large ammunition capacity of these weapons gave them the capability of quickly discharging numerous projectiles (Roth & Koper, 1999, p. 1). Still, rather than simply targeting the magazine feeding devices, the weapon was targeted as well. Shooting many bullets is presumed to lead to many more wounds and deaths. Roth and Koper (1999, pp. 2, 9; 2001, p. 35) argue that the ban did not produce reductions in the average number of murders per incident or average number of victims with multiple wounds. The magazine restriction affected approximately 40% of semiautomatic handguns manufactured prior to the ban.

Critics of the ban also argue that the expected increase in lethality of larger magazine capacities is countered by decreased accuracy as a result of the recoil generated by rapid fire. Reloading a gun with a smaller capacity magazine can be accomplished in seconds. Further, studies indicate that shootings involving more than 10 rounds are rare and most gun attacks involve less than four rounds. Also, "assault weapons" are larger and harder to conceal than handguns and are typically more expensive (Jacobs, 2002, p. 32; Roth & Koper, 2001, pp. 39-40; 43-45).

In a footnote, Barnett and Kates (1996, p. 1201) note that contemporary military weapons (especially in smaller calibers such as the 5.56mm or .223 caliber) are not designed to kill, but to wound. Wounding the enemy places a greater logistic strain on opposing forces. Not only are the injured soldiers removed from action, but also those who are required to attend to them.

Kleck and Kates (2001, p. 154) suggest that opponents of gun control perceive this legislation as illustrating an underlying desire to eliminate all types of guns. Handguns are targeted for control due to their frequent use by criminals and ease of concealment. Taken alone, this might seem a logical concern. However, "assault weapons" are seldom used in crimes and are difficult to conceal, but are targeted nonetheless. Since small concealable firearms that are frequently used in homicides and large non-concealable firearms that are infrequently used in homicides need to be controlled, are there any firearms that do not need to be controlled and why would medium sized, moderately concealable weapons be unaffected?

Comments by Senator Dianne Feinstein, sponsor of the "assault weapon" ban, seem to provide support for Kleck and Kates (2001, p. 154) observations. During an interview for *60 Minutes*, Senator Feinstein acknowledged that the sole reason that she has not introduced more intrusive legislation is that it was not politically practical. Senator Feinstein (cited in Barnett & Kates, 1996, p. 1258) stated, "If it were up to me, I would tell Mr. and Mrs. America to turn them in-turn them all in."

The assault weapons legislation may also have resulted in some unintended externalities. The legislation made larger, high capacity handguns inefficient in relation to their size. For instance, a 9mm handgun initially designed to contain 15 rounds was no longer size efficient as magazine capacity was reduced to 10 rounds. Thus, consumers may have been latently encouraged to purchase smaller, more concealable handguns specifically designed around the reduced 10 round capacity payloads. Further, because the upper limit for ammunition payload was set at ten rounds, it reduced the appeal of a smaller caliber though larger capacity pistol. If one could only have 10 rounds, it might as well be in the most potent caliber available.

Beckett & Sasson (2000, pp. 71; 126-127) reveal that the assault weapons ban was introduced in anti-crime legislation designed by the Democrats in response to Republican

legislation introduced a week earlier. Adding the assault weapons ban allowed for a claim that the Democrats were even “tougher on crime.” The image that gangsters and drug dealers frequently used these weapons certainly did not hurt the effort. Media coverage of violence, such as the Long Island Commuter Train Massacre and the trial of the Menendez brothers kept the issue of guns in the public conscience. Olson and Kopel (1999, pp. 406, 412, 448, 462) complain that the tendency of the press to sensationalize stories or spin atrocity tales contributed to moral panics and was a significant contributor to successful passage of the legislation.

The National Institute of Justice (Roth & Koper, 1999, p. 8) did find that BATF requests for assault weapon traces decreased 20% in the year following the ban. Total trace requests dropped only 11% and firearm related homicides dropped between 9 and 10%. However, this reduction may have resulted from the inflated prices that concentrated banned firearms with collectors and dealers who stockpiled them, limiting availability. Additionally, police only submit trace requests for a fraction of guns used in crime and assault weapons are generally overrepresented in trace requests (Roth & Koper, 2001, pp. 5, 45). Jacobs (2002, p. 32) insists that, “Laws like this reflect and fan the flames of the symbolic conflict between gun owners and gun controllers, with little, if any, relevance to the crime problem.”

The characteristics of an “assault weapon” may seem arbitrary. However, on a positive note, the law was specific and gave the Bureau of Alcohol, Tobacco, and Firearms no discretionary power to expand the list of prohibited weapons. This served to avoid expansion of the law by administrative fiat and the creation of a “slippery slope.” In contrast, Canada’s Bill C-68 not only banned some handguns, but allowed the Prime Minister and his administrators to ban other weapons without the approval of parliament. Further, the American legislation included a “sunset provision” meaning that the ban will be nullified in 2004 unless renewed by Congress (Olson & Kopel, 1999, p. 449; Roth & Koper, 2001, p. 48).

Weaknesses of Current Legislation. Besides a lack of controls on the secondary market, a significant failing of existing gun control legislation is its inability to keep guns out of the hands of juveniles. The two issues are related however, as juveniles may be even less likely to purchase their guns through the primary market than felons (Cook, et al., 1995, pp. 61, 70). Handguns may only be legally purchased by those 21 years old and older. Regardless of current laws, juveniles constitute 15% of firearm murderers (Zawitz & Strom, 2000, p. 3).

Some argue that more legislation is needed, though the specific type of legislation recommended varies. Others advocate stiffer enforcement of existing laws. This seems consistent with the theoretical perspective offered by Hartnagel (2002, pp. 407-409). He posited that rather than reversing their typical positions as Cottrol and Diamond (1991) suggest, the ideological perspectives of liberals and conservatives are actually consistent with their positions regarding gun control. Conservatives (and pro-gun advocates) are more likely to attribute criminal behavior to internal causal factors such as offender character, disposition, or motivation. Liberals (and pro-control advocates) are more likely to emphasize the role of environment and external or situational variables. As a result, pro-gun advocates are more likely to favor increased penalties for those who misuse guns. Conversely, pro-control proponents emphasize reducing the availability of guns. This paper now turns to the pro-control perspective.

CHAPTER FOUR: THE PRO-CONTROL ARGUMENTS

The Pro-Control Perspective

Pro-control advocates perceive guns (especially handguns) as a social ill more destructive than helpful. Essentially, proponents of this view share two very similar and somewhat overlapping paradigms. Epidemiologists portray guns as a vector or pathogen whose presence leads to injury or death. According to then president of the American College of Epidemiology, Paul Stolley (cited in Goldsmith, 1989, p. 675), "Homicide is not a disease, but it is a public health condition whose *primary cause* [emphasis added] is possession of guns-and it could be considered an epidemic because of the high incidence in certain populations."

Rather than a great equalizer, epidemiologists believe that guns are more likely to inadvertently injure or kill a family member than to provide protection from intruders (Ludwig, 1998, p. 239). This view is especially pronounced in the medical literature where guns are frequently portrayed as a "public health emergency" (Adler, et al., 1994, p. 1281; Annest, Mercy, Gibson, & Ryan, 1995; Blendon, et al., 1996; Goldsmith, 1989; Kates & Polsby, 1995, p. 249; Kellermann, Lee, Mercy, & Banton, 1991; Somerville, 1994, p. 7; Vernick & Teret, 1993, p. 1773; Watkins, 1997, p. 252). According to then director of the National Center for Injury Prevention, Mark Rosenberg (cited in Rasberry, 1994, p. A23), "We need to revolutionize the way we look at guns, like what we did with cigarettes. It used to be that smoking was a glamour symbol—cool, sexy, macho. Now it is dirty, deadly – and banned."

While epidemiologists appeal to a medical model, instrumentalists focus on the inherent characteristics of a gun (the instrument) that make it more deadly than other weapons. Under this perspective, the instrument can be even more important than offender motivation. Proponents of the instrumentalist view insist that the characteristics of firearms facilitate rapid

and impersonal murder of a relatively invulnerable victim from a distance, with reduced likelihood of a counterattack (Cook, 1991, p. 28; Gabor, 1995, p. 2001; McDonald, 1999, p. 12; Wells & Horney, 2002, p. 266). This capability combined with the greater lethality of a gun, in comparison to other weapons, makes confrontations inherently more deadly. Even if criminals substituted other weapons, in the absence of guns there would be a significant harm reduction. Fewer guns result in lowered death and injury rates (Clarke, 2000, pp. 5, 11; Cook, 1991; Cook & Leitzel, 1996, p. 98; Leitzel, 1998, p. 146; Loftin, McDowall, Wiersema, & Cottey, 1991, p. 1619; Utter & True, 2000, p. 74; Wright, et al., 1983, pp. 6, 123, 130; Zimring, 1995, p. 7).

Epidemiologists

According to Zimring (1993, p. 119) prior to 1980, medical research focusing on the relationship between guns and violent crime was scarce. However, this is no longer the case and firearm related death is now frequently regarded as a public health issue. Epidemiologists often place a greater emphasis on the relationship between firearms and suicide than traditional criminal justice research, where suicide has been largely neglected (Cook, 1991, p. 5; Zimring, 1993).

The epidemiological perspective rejects the compartmentalization that typically dominates discussion of firearms related death and injury. Rather than viewing gun violence as a crime problem, all firearms related injuries and death are viewed as a public health problem because they all stem from the same cause; discharge of a firearm. This approach treats firearm related death and injury through prevention and the elimination of a vector (Goldsmith, 1989, p. 676; Kellermann, et al., 1991, pp. 18-19; Somerville, 1994, p. 7). Dr. Christoffel (cited in Somerville, 1994, p. 7) states that, "Guns are a virus that must be eradicated. We need to immunize ourselves against them...Get rid of the guns, get rid of the bullets, and you get rid of the deaths."

Homicide. An often cited article by Sloan, et al., (1988) examined the relationship between robbery, burglary, assault, and homicide in Vancouver, British Columbia and Seattle, Washington between 1980 and 1986. Unlike many other international comparisons, these two cities have similar history, climate, and geography, and are only separated by 140 miles. The unemployment rate in the two cities differs by only .2%. The percentage of households earning \$10,000 or less was within 1.7%. Additionally, both cities shared similar arrest and conviction rates, as well as similar penalties for gun crimes (Sloan, et al., 1988, pp. 1257-1258).

Both cities required registration of handguns, although firearms are much easier to acquire in Seattle. An examination of handgun ownership in terms of both number of registrations and a gun prevalence index (which provides an estimate of handgun prevalence by correlating handgun related homicide and suicides with survey data) concluded that there were three times more handguns in Seattle (Sloan, et al., 1988, pp. 1257-1258).

Sloan, et al. (1988, pp. 1257-1259) determined that burglary rates were nearly identical, robbery rates varied only slightly, and similar rates of aggravated assault using knives, fists and feet were found in both cities. Firearms were used 7.7 times more often in Seattle. Although homicide victimization was 63% more likely in Seattle, death from a firearm was five times more likely. However, the difference between the two cities may be almost entirely due to differing demographic characteristics and patterns of racial discrimination.

Sloan, et al (1988, pp. 1259-1260) noted that white homicide rates were actually very slightly lower in Seattle than Vancouver (.2 per 100,000). The difference between the two cities was due to a nearly fourfold higher rate of murders involving Blacks (who made up 9.5% of the Seattle population and .3% of the Vancouver population) and more than a threefold higher rate of homicides involving Hispanics (2.6% of Seattle population and .5% in Vancouver). Additionally, Asians were overwhelmingly more likely to be killed in Seattle.

Sloan, et al. (1988, pp. 1260-1261) also noted that while Blacks in Vancouver earned slightly higher median incomes than the rest of the population, Blacks in Seattle earned much lower median incomes. While the two comparison areas are similar in most other respects, Cook (1991, pp. 46-47) comments that the study does not result from random assignment and it would be difficult to generalize any findings generated by a sample of two.

A comparison of Canadian provinces and their bordering American states, between 1976 and 1980 found that in spite of a three to ten times higher American rate of handgun ownership, there was no consistent difference in the rates of murder or aggravated assault. The authors propose that any attempt at reducing handgun availability in the United States would be of limited benefit (Centerwall, 1991, pp. 1245, 1253, 1256, 1258-1259). The study made no attempt to control for race, sex, or age. The study made the "rough" adjustment of eliminating the Canadian major metropolitan areas of Montreal, Toronto, and Vancouver, as well as the American cities of Detroit, New York City, Buffalo, Minneapolis, and Seattle (Centerwall, 1991, p. 1251).

Perhaps one of the most frequently cited statistics in the gun control debate is that a gun in the home is 43 times more likely to result in a murder, suicide, or accident than in actual protection of the home (Rosen, 2000, pp. 49-50; Utter & True, 2000, pp. 74-75). This figure can be traced back to Kellermann and Reay (1986) who reviewed medical examiners records for deaths in King County, Washington between 1978 and 1983 in order to examine firearm-related deaths occurring in the home. During this period there were 743 firearms related deaths, of which, 473 took place in a home. Of these 473 cases, 398 were in the household where the gun involved was kept, 333 were suicides, 50 were murders, and 12 were unintentional fatal injuries. Only 9 of the 50 homicides involved self-protection. Thus, the authors report the sobering statistic that every instance where guns were used to kill in self-protection was countered by 1.3

unintentional deaths, 4.6 murders, and 37 suicides, or a 43 to 1 ratio (Kellermann & Reay, 1986, pp. 1557-1559).

The authors are careful to point out that the instances included ignore gun use outside the home, and any instances where a defensive gun use did not involve a death, such as wounding, scaring off, or holding an intruder at gun point until the arrival of police (Kellermann & Reay, 1986, p. 1559). It is on this basis that studies of this type are generally critiqued. Pro-control advocates object to comparisons of "body counts" because the most desirable end state of a defensive gun use is not to actually kill an intruder, but deter them from further action. Thus, comparisons of this sort, which are based on a "body-count," are viewed as one-sided (Bruce-Briggs, 1976, p. 39; Cook, 1991, p. 62; Jacobs, 2002, p. 14; Kates, 1991, pp. 135-136; Kleck & Gertz, 1995, p. 181; Kleck & Kates, 2001, p. 311).

As noted earlier, a very small percentage of burglaries in the United States involve occupied residences. Consequently, homeowners seldom experience an opportunity to use a firearm to defend against burglars. Because any benefit derived from gun ownership is based solely on a count of dead burglars, this study was biased towards its conclusion even before any analysis was ever conducted. It is interesting to note that a body count of dead felons is an unlikely indicator of the usefulness of guns to law enforcement officials (Kates, 1991, p. 136).

Uniform Crime Report data indicate that police legally killed more felons each year between 1997 and 2001 than did civilians (Pastore & Maguire, 2002, p. 28). However, UCR murder statistics are based solely on police investigations, and not the decisions of courts, juries, or other judicial bodies (Pastore & Maguire, 2002, p. 19). Therefore, if an incident initially led to arrest, and was ruled a justifiable homicide at some later point, it could possibly be included as a murder.

Although the number of justifiable homicides by civilians may be difficult to determine, some have asserted that civilians actually kill more felons than the police (Kates, 1991, p. 137-139; Kleck, 1988, p. 5; Kleck, 1997, p. 163). It has also been asserted that civilians are from five to eleven times less likely to inadvertently shoot someone mistaken for an intruder than police are to kill an innocent party (Funk, 1995, p. 790; Kates, 1991, p. 130; Kleck & Kates, 2001, p. 15; Lott & Mustard, 1997, p. 3; Lott, 2000, p. 1-2; Snyder, 1993, p. 50).

An analysis of homicides in Shelby County, Tennessee and King County, Washington between 1987 and 1992, and Cuyahoga County, Ohio between 1990 and 1992 found that gun ownership was positively correlated with risk of murder in the home (Kellermann, et al., 1993, p. 1084). A comparison of 316 "matched pairs" of households in which homicides occurred was compared with those in which they did not. The results were reported to indicate that homes with guns were more likely to experience a murder. The authors concluded that, "... a gun kept in the home is far more likely to be involved in the death of a member of the household than it is to be used to kill in self-defense." They recommend that people be "discouraged" from maintaining firearms in their households (Kellermann, et al., 1993, p. 1090).

However, it should be noted that other factors such as living in a rented home, living alone, illegal drug use, and physical violence were more closely correlated with homicide than was gun ownership (Christie, 1999, p. 97; Kates, et al., 1995, p. 588; Kellermann, et al., 1993, pp. 1089-1090). Several scholars have also suggested that this article was misleading. The reader was led to believe that the increased likelihood of death stemmed from the presence of a gun kept in the residence. In fact, very few of the deaths were attributable to guns kept in the home. The guns used to kill were bought in from outside the home by the perpetrator (Clarke, 2000, pp. 9-10, 17; Kates, et al., 1995, p. 586; Kleck, 2001, pp. 64, 67; Kleck & Kates, 2001, p. 75). The number of cases actually involving a gun kept in the home where a fatality occurred is

believed to be between one and eight (Kates, et al., 1995, p. 586; Kellermann & Rivera, 1994, p. 368; Kleck, 2001, p. 68; Lott, 2000, p. 24).

Kates, et al. (1995, p. 587) notes that the “victim” of the homicide and the victim of the crime may not have been the same person, though Kellermann, et al., (1993) seem to assume that they are. According to Kates, et al. (1995, p. 587) the “victim” may have been the aggressor and have been killed in a self-defense situation.

Kellermann, et al. (1993, p. 1089) did explain there is the potential of reverse causation. That is, risk factors that contribute to a higher risk lifestyle and a greater probability of being killed leads people to arm themselves. This is a problem that several researchers have suggested may explain not only some, but the majority of the findings (Kates, et al., 1995, p. 587; Kleck, 1998, pp. 474-475; Lott, 2000, p. 24; Polsby, 1994, p. 60; Southwick, 2000, pp. 351, 368).

A subsequent study of burglary in Atlanta revealed that guns were seldom used to defend against home intrusion. However, when guns were used, defenders were not injured (Kellermann, Westphal, Fischer, & Harvard, 1995). For reasons already discussed, it is unsurprising that guns were infrequently used. Further, because the type of gun control legislation in the city was not addressed, it is uncertain how restrictive or permissive laws may have affected the availability of guns to potential defenders. Kopel (2001, p. 351) claims that the Mayor of Atlanta and the chiefs of police are ardent and vocal advocates of gun control and that it is unlikely that incidents where a burglar was frightened away would be reported to the police.

The Firearms Control Regulations Act of 1976 prohibited buying, selling, or possessing handguns by civilians in Washington, D.C. The only exceptions were those residents already in possession of a registered gun under the preexisting system. A study of murders and suicides in the District of Columbia and adjacent metropolitan areas in Virginia and Maryland from 1968 to

1987 revealed a significant and immediate reduction in the firearm-related homicides and suicides in the District of Columbia. There was no corresponding increase in homicide and suicide by other methods and variations were statistically insignificant. The control areas did not experience similar reductions. The authors of this study concluded that it presented strong evidence of the efficacy of restrictive gun control legislation (Loftin, et al., 1991, pp. 1615, 1617, 1620).

Britt, Kleck, and Bordua (1996, p. 365) cite various methodological problems with the study and insist that the comparison areas were substantially different from D.C. in virtually all respects. D.C. has high levels of violent crime, and a largely black, economically disadvantaged population. The surrounding suburbs are among the most prosperous areas in the nation with little violence and a predominantly white population. Baltimore is within close geographic proximity (45 miles), demographically similar, shared similar rates of violent crime and homicide, and is suggested as a preferable comparison city (Britt, Kleck, & Bordua, 1996, p. 366).

Although no firearms legislation was introduced there, Baltimore experienced a much greater drop in homicide (more than twice the percentage of D.C.) (Britt, et al., 1996, p. 366). Additionally, when the years 1988 and 1989 are included in the observation period, the D.C. homicide rate was nearly back to pre-intervention levels, while homicide continued to decline in Baltimore (Britt, et al., 1996, p. 375).

Suicide. A study of suicide rates in King County and the Vancouver area between 1985 and 1987 found no significant variation (Sloan, Rivara, Reay, Ferris, & Kellermann, 1990, pp. 369, 372). Although residents of King County more often took their lives using handguns, the variance was countered by a 1.5 times greater suicide rate using other methods in Vancouver.

This led the authors to conclude that individuals intent on suicide may choose alternate methods if handguns were unavailable.

Kellermann, et al., (1992, pp. 467-470) compared 360 residents of Shelby County, Tennessee and King County, Washington who committed suicide in their homes (including the yard and adjoining buildings) over a 32-month period from 1987 to 1990 to "matched pairs" who did not. They found that residents who committed suicide were more likely to keep a gun in their home. The authors note that four of the seven variables included in their final model had a higher adjusted odds ratio than guns in the home, and no attempt was made to examine any possible interaction between the variables (Kellermann, et al., 1992, p. 470).

Besides the previously discussed substitution effect, one of the problems with this study is that it only examined suicide in the home. It may be that those who own guns are more likely to end their lives at home, while those who do not have guns must leave their residence in order to pursue other methods of self-elimination, such as jumping from a tall building, drowning, or using guns belonging to others. Therefore, a more informative comparison would include all suicides (regardless of where they occurred) along with case controls (Zimring, 1993, p. 121). Kopel (2001, p. 362) notes that guns in the home may present a risk, but he believes this risk is largely confined to alcoholics, drug addicts, persons with suicidal tendencies, and violent felons.

Examining the gun control debate from an epidemiologic perspective does provide insights into the potential for destructive outcomes when guns are available and encourages weighing costs and benefits of gun ownership. However, a cornerstone of the epidemiology argument is that as handgun availability increases, so do the numbers of firearm-associated deaths (Goldsmith, 1989, p. 675). This assertion draws criticism from pro-gun academics. They argue that the number of handguns per 100,000 in America has increased steadily (especially since the 1960s), while the rates of homicide, suicide, and firearms related accidents

have fluctuated, declining in recent years (Barnett & Kates, 1996, p.1250; Jacobs, 2002, p. 13; Kates, et al., 1995, p. 567; Kleck & Kates, 2001, pp. 66-69; Polsby, 1994, p. 60; Polsby, 1997, pp. 35-36; Stell, 2001, p. 30; Wright, 1995, p. 64).

An examination of firearm related injuries in the United States from 1903 to 2001 reveals that the total number of accidents with firearms in 2001 was more than three times lower than in 1903 (a comparison of rates would provide an even larger drop due to population growth). Additionally, there was a 44% decline in firearm related accidents between 1991 and 2001 (See Appendix B) (National Safety Council, 2002, pp. 42-43). The death rate from firearm-related suicides in the U.S. (all races, both sexes, and all ages) was lower in 1998 than any period since 1979 (See Appendix C) (National Vital Statistics System, 2001, pp. 715, 721).

National homicide rates have also declined in recent years. The 1999 U.S. homicide rate was the lowest it had been since 1976, and had declined every year since 1993 (See Appendix D) (Pastore & Marguire, 2002, p. 312). Finally, though medical treatment may have lowered the fatality rate over the same period, the number of nonfatal firearm-related injuries also declined every year between 1993 and 1998 (See Appendix E) (Gotsch, Annest, Mercy, & Ryan, 2001, p. 25). When one considers this data, along with the knowledge that there has been a tremendous increase in gun sales over the last few decades, and that as much as 80% of all privately owned firearms may have been purchased since 1974, it is clear that there is much more responsible for gun violence than the availability of guns (Cook & Ludwig, 1996, p. 13; Jacobs, 2002, p. 13).

A number of factors are at work in determining rates of gun violence. For example, some scholars found that variations in the U.S. murder rate in the late 1980s and early 1990s were largely attributable to trends in the largest cities. When rates of murder spiked, it was primarily the result of increases in homicide by black juveniles, which outpaced declines for the

other age groups. The increase among young black males was a function of the war on drugs and mandatory sentencing. Drug dealers who wished to avoid incarceration began to recruit large numbers of black youth into the drug market. These youth armed themselves for self-protection and dispute resolution. This spurred an arms race and resulted in increased homicide rates among more impulsive youth. Nearly all of the observed increases in murder rates were thought to be attributable to the increased use of handguns as murder weapons by this cohort in the largest U.S. cities (Blumstein, 1995; Blumstein & Rosenfield, 1998; Cook, et al., 1995, p. 61)

As a result, some argue that viewing gun control solely from an epidemiological perspective is overly simplistic. For example, Christie (1999, pp. 96, 99) argues that by focusing excessive attention on guns, the medical community may “short-circuit” the search for more significant causal factors such as alcohol and drug abuse, poverty, and mental illness. Further, it is suggested that this view concentrates on the negative aspects of gun ownership rather than any positive benefits. Guns are different from diseases in several ways that a medical model may fail to account for. For example, Polsby (1994, p. 64) insists that unlike a virus, which most want eradicated, many Americans desire to keep guns for both sport and protection.

Inarguably, guns are instruments of murder and suicide, but when used responsibly they can also preclude homicides, deter violence, and deescalate potentially violent situations. Ostensibly, this is a fact that society understands because the requirement for an armed police force is not a matter of considerable public debate (Polsby, 1995a, p. 228; Stell, 2001, p. 30).

Despite these criticisms, the medical model may still be valuable for focusing attention on prevention efforts. This seems preferable to focusing primarily on increased punishment for criminal use of guns. By definition, ex post facto measures offer little to prevent criminal

misuse from occurring in the first place. Unlike some other social problems, once a death occurs, there is little that can be done to right the wrong.

Even more importantly, combining a focus on prevention with observations such as those offered by Blumstein (1995) and Blumstein and Rosenfield (1998) might inspire legislators to focus on those factors that contribute to criminal misuse of firearms, such as the role of the war on drugs, its destructive effects on America's youth and inner cities, and the cost of mandatory sentencing in terms of increased homicide rates. Social problems are nested and connected. It is important to look not only at the obvious relationship between guns and violence but beyond. When employed with a broader perspective perhaps a medical model could lead to significant harm reduction.

Before arriving at any policy conclusions based on this information, it is important to examine the claims of instrumentalists, before turning to an analysis of international comparisons. The paper will then review the arguments of pro-gun advocates. Inquiry of this type could provide insight into whether firearm ownership provides a public safety and crime deterrence benefit or is more likely to contribute to inadvertent injury, homicide, or suicide (Cook, 1991, p. 52).

Instrumentalists

An advocate of the instrumentalist perspective, Cook (1991, pp. 1-2) introduces the concept of "the technology of personal violence" and the three central issues that he feels researchers need to consider. The first issue is determining the causal relationship between a particular type of weapon and the number, outcome, and lethality of violent interactions. The second is to determine the relationship between the availability of firearms and their use in suicide and crime in general. Finally, he suggests that researchers should examine how potential victimization can influence the use of firearms for self-defense and the consequences.

The Instrumentality Effect. Handguns have been found to be 3 to 6 times more lethal than knives (Kleck & Kates, 2001, p. 22). Wright, et al. (1983, p. 198) cite a 5:1 gun to knife lethality ratio. Although they indicate that this ratio varied based on the study and ranged from 1.5:1 to 6: 1 (Wright, et al., 1983, p. 6).

While offender intentions matter, instrumentalists argues that the type of weapon is important in determining the outcome of an incident because the determination to kill cannot be assumed to be a constant (Cook, 1991, p. 4; Cook & Leitzel, 1996, pp. 100, 106; Loftin, et al, 1991, p. 1619). Failure to provide a greater emphasis on the mechanisms that cause harm, rather than offender intentions, may retard the development of policies aimed at harm reduction (Zimring, 1993, p. 110).

For example, Cook (1991, p. 14) asks the reader to imagine intervention in a violent altercation immediately prior to the first strike and a corresponding substitution of a less lethal weapon for the offender's gun. Would this affect the outcome? If guns were replaced with knives the homicide rate would decrease, especially in circumstances where the intent of the offender is "ambiguous." In contrast to the ease with which a gun can be employed using a knife to commit murder requires greater effort and strength. Physical and emotional limitations may even preclude an attack in the absence of guns (Moore, 1983, p. 186; Wells & Horney, 2002, p. 266).

In contrast to the instrumentality effect is the "weapons substitution hypothesis," often credited to Wolfgang (1958) (Cook, 1991, pp. 13-14; Wells & Horney, 2002, p. 268; Wright, et al, 1983, p. 190). According to this hypothesis, the selection of weapon is a function of the predisposition, intention, and determination of the offender. If the objective is murder, a gun will be selected. However, if guns are not available, some other tool will be substituted, and the results will be just as lethal. Offenders who choose a gun do so because they are more intent on

killing their victims or on succeeding with a crime (Kleck & Bordua, 1983, p. 273; Wells & Horney, 2002, p. 266; Wright, et al., 1983, pp. 190-192, 199). This hypothesis does *not* suggest that all weapons utilized instead of a gun would be equally deadly. Lethality would only be equivalent if the perpetrator were truly determined and had a single-minded intent to kill (Wright, et al., 1983, p. 204).

One fact that seems to provide support for the instrumentality effect is that wounds inflicted by larger caliber handguns are more likely to be fatal than those inflicted by guns of a smaller caliber. Therefore, the instrument being used is an important determinant of the fatality of an altercation. Even when offender intentions are the same, outcomes vary based on the different instrument chosen. Still, others argue that offenders choose larger caliber weapons precisely because they are more intent on killing their victims (Cook, 1991, p. 16; Gabor, 1995, p. 202; Kleck & Bordua, 1983, p. 273, Wright, et al., 1983, p. 203).

Emphasis has traditionally been placed on limiting the availability of handguns (although it could be argued that more recently "assault weapons" have garnered most interest), and the typical paradigm assumes knives will be the substituted weapons. While the substitution effect could result in knives or blunt objects replacing handguns, an alternative possibility is that offenders would substitute sawn-off long guns (either rifles or shotguns) instead. There are far more rifles and shotguns in circulation than handguns, and these weapons (especially in their higher calibers) are several times more lethal than handguns. Additionally, rifles or shotguns can easily be cut down to a more concealable (though admittedly larger than handguns) size. Therefore, gun control measures limited to only handguns may result in even higher incidences of death; a rather severe negative externality (Bruce-Biggs, 1976, p. 53; Cook, 1991, p. 22; Kates, 1991, p. 165; Kleck & Bordua, 1983, p. 273; Kleck & Kates 2001, pp. 22-23; Moore, 1983, p. 190; Wright et al., 1983, pp. 197; 322). Still, it would seem that these

arguments reveal a consensus that weapon type may be a causal factor in death rates (Cook, 1991, p. 22).

Another argument offered by instrumentalists is the greater frequency of death in gun robberies versus knife robberies. Although robbers with guns are less likely to injure their victims (perhaps because it is less necessary to use force to gain acquiescence), if a firearm is used, it more often results in a fatality (Block, 1981, p. 748; Cook, 1991, pp. 16-17; 20-21; Gabor, 1995, p. 201; Jacobs, 2002, p. 13; Kleck & McElrath, 1991, pp. 669, 674, 684; Schnebly, 2002, p. 381).

In an analysis of homicides resulting from robberies, Cook (1991, pp. 16-17; 20-21) found that gun-wielding robbers were less likely to injure their victims than those armed with knives, other weapons, or strong arm robbers. However, the fatality rate when guns are used was three times higher than when knives were used and ten times higher than when other weapons are used. Presumably the intent of robberies is financial gain and not to kill the victim. The offender desires to avoid resistance and to forcefully overcome it only when otherwise unavoidable (Cook, 1991, pp. 20-21; Kates, 1991, p. 143; Schnebly, 2002, p. 381; Southwick, 2000, p. 360).

Guns are chosen because they make it more likely that the perpetrator will succeed in accomplishing the robbery. Guns induce greater fear and less resistance. Not only is this reflected in the higher "take" in gun robberies, but the reduced likelihood of injury to victims (Cook, 1991, pp. 21, 32-33; Southwick, 2000, p. 360). Southwick (2000, p. 360) points out that those robbers who injure their victims face stiffer criminal penalties and may incite a more energetic response from law enforcement. Robbers may be attempting to avoid injuring their victims by displaying guns during their robberies. Arguments such as these provide the greatest

support for the instrumentality effect (Wright, et al., 1983, pp. 208-209). However, some cautions are offered.

First, based on the average loss in gun robberies as opposed to knife robberies, Wright, et al. (1983, pp. 210-211) found that it would take three knife robberies to equal one gun robbery. Based on this three to one substitution assumption, they posit that elimination of all guns and substitution with knife robberies could lead to more death and injury. Furthermore, because guns allow offenders to rob more difficult targets, restricting guns may lead to robbery of more frail and vulnerable targets (Kates, 1991, p. 143; Moore, 1983, p. 187; Wright, et al., 1983, pp. 210-211).

Under this view, robbers with knives would be more likely to injure their victims. Robbing a weak or frail victim, could result in more deaths than would occur if guns were available to robbers. This argument suggests that there may be even greater levels of death than the three for one model indicates. Alternatively many criminals may avoid robbery if guns are restricted because it is less lucrative (Wright et al., 1983, pp. 210-211). The point being made, however, is that there are potential unintended negative externalities for policy interventions that require careful consideration before policy decisions are made.

Ambiguous Intentions Hypothesis. Instrumentalists, also argue that a large portion of murders did not seem to involve much prior planning and are perpetrated by offenders with “ambiguous intentions” who were not really planning to kill their victims. Because most people occasionally become angry, there is a potential for a temporary lapse of judgment. If only knives or clubs are available, an angry person would be a threat, but would not be as dangerous as when wielding a firearm. As a result, normal people are transformed into killers by the misfortune of access to a gun (Ayres & Donohue, 1999, p. 439; Kates, 1983, pp. 263-264; Kates

& Polsby, 2000, p. 192; Loftin, et al., 1991, p. 1619; Moore, 1983, p. 186; Polsby, 1995b, pp. 209-210; Wright, et al., 1983, pp. 191-192).

The relevant question then becomes the extent to which criminal homicides are committed by premeditating individuals and what is the prevalence of expressive versus instrumental homicide. To what extent are murders simply the result of dramatic emotional outbursts (which would not occur if a gun were not present) versus the act of a calculating and determined actor, who would find a means of killing in the absence of a gun (Wright, et al., 1983, pp. 191-192)?

Some studies found that a large percentage of murders involved a single projectile. To the instrumentalist this indicates that after firing a single round in a crime of passion, the offender is jarred back into reality, recognizes the gravity of his action and doesn't fire again (Cook, 1991, p. 14; Wells & Horney, 2002, p. 269; Wright, et al, 1983, p. 196). In the words of Cook (1991, p. 14), "...the assailant may cease the attack after inflicting a wound or two, simply because the violent urge that prompted the attack is satisfied." However, the lack of wounds may actually lead to a conclusion contrary to that offered by instrumentalists: no loss of emotional control occurred in the first place and the offender was never in a blind rage. Presumptions of intent, "ambiguous" or otherwise do not necessarily follow from the number of gun shot wounds (Wright, et al, 1983, p. 196).

Instrumentalists employ several additional arguments in support of the ambiguous intentions hypothesis. First, some percentage of fatal altercations involves acquaintances and family members (Cook, 1991, p. 15; Kates, 1983, pp. 263-264; Wells and Horney, 2002, p. 269; Wright, et al., 1983, pp. 193-201). In 2001, family members were responsible for 13.1% of homicides (Federal Bureau of Investigation, 2002, p. 25).

Instrumentalists see the presence of familial or acquaintance relationships between offenders and victims as evidence that petty arguments turn deadly simply from the easy access to a gun. By the same token, others argue that it may actually be easier to build up an intense aversion for a family member or acquaintance than a stranger. Again, intent is difficult to establish based on victim offender relationship (Wright et al., 1983, pp. 193-194).

A number of scholars insist that offenders with lengthy criminal histories perpetrate the majority of homicides. Indeed, even instances of murder in domestic disturbances are often preceded by a pattern of domestic violence, arrest, and police involvement (Ayres & Donohue, 1999, p. 440; Barnett & Kates, 1996, pp. 1245-1246; Bruce-Briggs, 1976, p. 40; Clarke, 2000, p. 11; Jacobs, 2002, p. 11; Kates, 1983, pp. 263-264; 1991, pp. 123, 128; 2003, p. 306; Kates & Polsby, 2000, p. 192; Kates, et al., 1995, pp. 582-584; 579; Wright, et al., 1983, p. 193). According to Lott (2000, p. 9) the typical murderer is not a previously model citizen, as more than 89% of adult murderers in the seventy-five largest counties had adult criminal histories.

Kleck (2001, p. 20) and Kates et al. (1995, p. 580) contend that nearly 90% of adult murderers had criminal histories and an average "criminal career" spanning at least six years and consisting of four serious felony arrests. Kellermann, et al. (1991, pp. 22-23) noted that comparatively few murders and suicides are spontaneous. Both victims and perpetrators of violent death often have histories of involvement in non-lethal violent altercations. Jacobs (2002, p. 11) argues that murder is disproportionately a phenomenon of a criminal subculture.

Even in the case of fatal or injurious firearms accidents, some have found that the shooters exhibited histories of poor impulse control, alcoholism, risk taking, and increased likelihood of automobile and firearms accidents. They were also said to have been more likely to have received traffic citations and more likely to have had their licenses suspended or

revoked (Barnett & Kates, 1996, p.1245; Kates, et al.,1995, p. 587; Kopel, 2000, p. 1223-1224; Lott, 2003, pp. 141-149).

Examining the 31 states that then had concealed-carry legislation, Kates and Polsby (2000, p. 196) found only one homicide committed by a permit holder between 1990 and 1997, and this by a person with a history of mental instability, who likely should never have received a permit. Additionally, the individual was unlawfully carrying a weapon in a state where his permit was not valid. This is seen by some as evidence that "normal" people are not the perpetrators for homicide, but rather "...extreme aberrants with records of crime and mental disorder" (Kates & Polsby 2000, p. 196). Thus, rather than blanket restrictions, perhaps focusing more efforts on background checks and keeping these high risk individuals from obtaining firearms would provide greatest benefit and least inconvenience to the law-abiding.

Consumption of alcohol is presumed by instrumentalists to indicate that the offender was not in his normal mindset when the fatal occurrence transpired. If a gun had not been readily available death would not have occurred (Cook, 1991, p. 15; Wells & Horney, 2002, p. 269; Wright, et al, 1983, p. 197). While this is certainly plausible, others insist that an equally possible explanation is that the offender was "working up the courage" to complete the act (Wright, et al, 1983, p. 197).

Offenders and victims in both serious assaults and murders often exhibit similar demographic characteristics. This may suggest murders are simply serious assaults that go awry. Thus, the offender's original intentions were "ambiguous." Still, some argue that these similarities provide no insight into motives (Wright, et al., 1983, p. 195).

Finally, studies examining the location and number of wounds in knife attacks as compared to those of gun attacks have found that knife attacks are more likely to be directed to "serious" areas, (such as the chest abdomen, head, face, back, and neck) and involve multiple

lacerations. These studies suggest that knife attacks may have been motivated by more lethal intent than gun attacks, yet still result in fewer deaths. The fact that so many knife attacks appear to be in earnest provides support for the instrumentality effect and the greater lethality of guns. However, support for the ambiguous intentions hypothesis is somewhat lacking. Ostensibly, wounds with a gun directed to other than vital areas indicate an “ambiguous intention” by the offender. However, the location of bullet wounds could be as much a function of the offender’s marksmanship ability as intention (Cook, 1991, p. 15; Webster & Ludwig, 1999, p. 8; Wright et al., 1983, pp. 200-201).

What can be concluded from an examination of the instrumentalist arguments? In the final analysis, the best available evidence seems to support the greater lethality of guns as opposed to other weapons. Although offender intentions are important, all things being equal, it is simply easier to kill with a gun. If violence prone individuals could not obtain guns, there may be as much, or even more violence than there is now, but it would probably not be as lethal (Cook, 1991, p. 28). However, the hypothesis of ambiguous intent does not seem well supported based on the information reviewed here. Offender motivation is a complex phenomenon and most attempts to study it have been limited by data sets that were not specifically intended to measure either intention or motivation (Wells & Horney, 2002, pp. 270-271).

This paper will now turn to an analysis of international comparisons and how various aspects of these comparisons are used by claims makers on either side of the gun control debate.

CHAPTER FIVE: INTERNATIONAL COMPARISONS

Homicide

International comparisons are often used in order to demonstrate a link between widespread civilian gun ownership and increased levels of homicide (Cook, 1991, pp. 4, 46-47; Zimring, 1993, p. 114; 1995, p. 8). The argument is that in countries with strict gun control measures in place, the death toll is much lower than in the United States, which has few federal regulations and widespread firearm ownership. Furthermore, differences in the homicide rate between the United States and other nations have persisted over time (Miron, 2001, p. 615).

For instance, a United Nations study (1997, pp.23-24) determined that the United States had a much higher rate of murder than similar western nations (See Appendix F). The American homicide rate was 8.95 per 100,000 while Great Britain's homicide rate was 1.4 per 100,000. Australia's murder rate was 2.14, Belgium's was 3.87, and Canada's was 1.99. Germany's rate was 1.81 and Japan's was .60. Each of these countries also has a much lower incidence of personally owned firearms than the United States (United Nations, 1997, p. 18). Of the 8.95 per 100,000 murders in the United States, 6.24 involved firearms. Krug, Powell and Dahlberg (1998, p. 214) reported that the rate of firearms related death was eight times higher in the United States than in other high-income nations.

A comparison of crime rates (per 100,000) between the United States, England, and Wales revealed that the murder rate in the United States was 8.7 times greater than in England in 1981 and 5.7 times greater in 1996. Firearms were most prevalent in U.S. homicides, where 68% of murderers used firearms compared to 7% of English murderers. U.S. robbers were also more likely to use a firearm (41%) than their English counterparts (5%) (Langan & Farrington, 1998, pp. iii; 5-6).

On the surface, these statistics seem to provide convincing evidence that a greater presence of firearms does indeed result in more murders. However, there are some problems with the use of international comparisons. One difficulty lies in the manner in which data are compiled. Data used for comparisons often comes from different years and are simply the latest figures reported. Thus, the year being examined will differ depending on the nation and the manner of death (homicide or suicide) (Kleck & Kates, 2001, p. 60; Lott, 2000, p. 113; Messner & Rosenfeld, 2001, p. 18; United Nations, 1997, pp. 22, 24).

Further, different methods and organizations are used in different countries (Lott, 2000, p. 113; Messner & Rosenfeld, 2001, p. 18). Additionally, U.S. murders are recorded as homicides regardless of whether the charge is later reduced, or the case is declined for prosecution. As a result, the murder rate in the United States is as high as possible to begin with and includes some cases that are later acquitted or judged to have been self-defense (Kopel, 1992, p. 409; Malcom, 2002, p. 227).

Responding to concerns that the death penalty might be reinstated, Britain devised an alternative method of compiling homicide statistics. This method removed murders from official reports if the charges were reduced, or the incident was determined to be an accident. Consequently, the British homicide rate was reduced by an average of 12% over past years (Malcom, 2002, pp. 227-229).

The U.S. murder rate is based solely on arrest data and may not reflect subsequent decisions of judicial bodies or juries (Pastore & Maguire, 2002, p. 19). In their endnotes, Gorman and Kopel (2000, p. 100) assert that between 1,400 and 2,300 American homicides are actually justifiable homicides. These murders remain in official statistics. Although the U.S. rates would still be significantly higher if justifiable homicides and accidental shootings were

later removed, the point being made is that differential recording practices tend to distort actual variances and exaggerate differences between the United States and some other nations.

In response to definitional and reporting problems inherent in comparisons of official statistics, the Canadian Department of Justice published a victimization study that used similar methodologies to compare firearm ownership and firearm related victimization between Canada and eight other western countries (Block, 1998, pp. 1-2). According to Block (1998, p. 4), 48.55% of American households had one or more guns. This was much higher than any of the other countries studied. Switzerland had the second largest percentage at 36.4%, followed by France at 23.83%. England, Wales, Scotland, and the Netherlands had less than 5% of households with a firearm. Rather unsurprisingly, respondents from the United States were most likely to have been robbed, assaulted, or threatened by an offender who was carrying a gun (See Appendix G and H) (Block, 1998, pp. 15-16; 18-19).

Countries often experienced low crime rates prior to the introduction of restrictive firearms legislation. A causal relationship should not be inferred when the treatment does not precede the effect (Kleck & Kates, 2001, pp. 53, 59). For example, at the beginning of the 20th century there were practically no gun control statutes and few firearm related homicides in Great Britain. Gorman and Kopel (2000, pp. 95; 140) cite a British homicide rate of between 1 and 1.8 per 100,000 during this period. That early 20th British Century rate is comparable to the 1997 British rate of 1.4 per 100,000 (United Nations, 1997, p. 24).

Carter (2000, p. 72) cites homicide rates 12 to 14 times lower than the United States in both Great Britain and Canada prior to the adoption of gun control in these countries. Even when firearm related homicides are removed from the United States homicide rates, the non-firearm related murder rate is still higher than the total rate of many similar western nations

(Barnett & Kates, 1996, p.1237; Carter, 2000, p. 69; Jacobs, 2002, p. 8; Messner & Rosenfeld, 2001, p.21).

For example, when one removes the previously cited 6.24 firearm related homicides per 100,000 from the total rate of 8.95 (See Appendix F), the American homicide rate would be 2.71 per 100,000 (United Nations, 1997, pp. 23-24). This non-gun rate was still higher than total homicide rates for Australia, Austria, Canada, Germany, Greece, New Zealand, Spain, Sweden, and Great Britain, among others. In fact, it was over four times greater than Japan's homicide rate. Obviously, this procedure fails to take into account the number of American firearm homicides that would have been accomplished through an alternative manner (e.g. substitution).

Some scholars note that Great Britain passed the Firearms Act of 1920, not because of rising crime rates, but due to fear of popular uprising and revolution by the underclass. This was a time of widespread discontent, strikes among the working class, and an almost hysterical fear of Marxism and communism by the aristocracy. Additionally, the Bolshevik Revolution was a potent reminder of the growing appeal of communism (Barnett & Kates, 1996, p.1241; Kleck, 1996, p. 400; Kopel, 1992, pp. 72-75; Malcom, 1994, pp. 171-173; Olson & Kopel, 1999, pp. 411-412).

While restrictive gun controls may serve a manifest function of reducing the rate of violent crime, gun control may also have latent political functions including: (1) creating dependency on government and acceptance of greater power and abuse by law enforcement; (2) weakening or precluding opposition to government; (3) reducing demands for large scale reform; (4) permitting selective enforcement against those believed to be a threat; and (5) facilitating government repression (Kessler, 1983, p. 381; Kleck, 1996, p. 388). Additionally, some suggest that gun control can become a "panacea for violent crime," and detract attention

from the more intractable causes of crime such as racism, poverty, and unemployment (Kessler, 1983, p. 386).

Opponents of gun control argue that international comparisons can be misleading. Typically, they will point to examples such as Switzerland, Mexico, Israel, South Africa, and New Zealand in an attempt to dismiss the effectiveness of gun control legislation (Carter, 2000, p. 70; Funk, 1995, p. 770; Jacobs, 2002, p. 11; Miron, 2001, p. 616). The Swiss have high rates of gun ownership because all able-bodied males are part of the home guard and are required to keep a military weapon and ammunition. Israel and New Zealand also have high rates of gun ownership. Each of these countries has lower murder rates than the United States. Conversely, Mexico and South Africa have rates of gun violence that are said to be twice as high as the U.S., yet guns are much more strictly controlled. It may also be that in countries with restrictive legislation, gun owners are much less likely to admit ownership (Lott, 2000, p. 113).

Of course, pro-control advocates suggest that these four nations are not adequate for comparison with the United States. By the same token, it can be argued that the inability to provide a solid basis for comparison is a serious concern (Bruce-Biggs, 1976, p. 56; Kellermann, Lee, Mercy, & Banton, 1991, p. 28; Wright et al., 1983, pp. 125-126). In essence, some studies purposively and selectively choose the nation of comparison in order to arrive at different conclusions (Kellermann, et al., 1991, p. 23; Wright, et al., 1983, p. 125).

Additionally, there are numerous differences in historical, cultural, legal, economic, and social aspects of nations as well as their political climate and patterns of racial discrimination and equality. Unless these differences are controlled for, simple international comparisons of the prevalence of gun ownership, strictness of gun control legislation, and the levels of homicide tell us little (Christie, 1999, p. 98; Kates, 1983, p. 261; Messner & Rosenfeld, 2001; Miron,

2001, p. 616). Cook (1991, p. 46) contends the most that can be determined from such comparisons is that there is more involved with personal violence than guns.

That international comparisons often make no attempt to control the myriad of factors other than the presence of guns is easily demonstrable. An extension of this reasoning might be a comparison of rural and urban areas. Guns are more prevalent in rural areas while crime is more concentrated in urban areas. The presence of guns and low crime rates in rural areas may therefore be correlated. However, as Kates (1991, p. 133) humorously points out, cows are also more numerous in rural areas, and few would idealize "Old Bessie" as the great protector. Correlation and causation are not the same, and research must attempt to account for a number of potentially spurious relationships (Miron, 2001, p. 616).

In a particularly insightful article, Miron (2001) suggests that international differences are better explained by the tenacity with which drug enforcement efforts are carried out. Stricter enforcement in the United States not only increases market turmoil and disruption, but eliminates recourse to legitimate conflict resolution mechanisms. Thus, those involved in the drug trade are latently encouraged to arm themselves and settle disputes in a violent manner. Additionally, the size of the black market is actually expanded. Opportunity costs are created because law enforcements efforts are distracted from more serious crimes and prisons are filled with drug offenders. Meanwhile, violent offenders are released to provide room.

According to Barnett and Kates (1996, pp. 1252-1253) the war on drugs has had a deleterious impact on Black youth violence through a number of mechanisms. Not only has it necessitated violence as a means of conflict resolution and caused market disruption, but sellers are often murdered for their money or drugs. Additionally, mandatory drug sentencing policies have removed thousands of men from their families, increased economic hardships, and perpetuated the cycle of violence.

Koppel (1992) provides a comprehensive analysis of violent crime, gun control, and gun ownership in Australia, Canada, the United Kingdom, New Zealand, Jamaica and Japan. This work reveals a plethora of factors other than levels of firearms ownership and the existence of gun control statutes that affect murder rates. Levels of economic inequality, racial homogeneity and discrimination, cultural and social integration, and the extent of social control and social welfare are repeatedly suggested to be far more important predictors of the level of homicides, firearm related or otherwise. Similar themes are expressed by Messner and Rosenfeld (2001).

Gorman and Kopel (2000, p. 93) also believe that cultural issues rather than gun availability are the primary impetus for homicide. They point out that Japan has a centuries' old tradition of placing society above the individual and that suicide is obviously more likely than murder. In contrast, the United States has less ethnic homogeneity, weaker social ties, and a greater emphasis on the individual, making homicide more likely. Again, this argument does not attempt to refute the greater lethality of a gun in comparison to most other methods of violence. However, the implicit suggestion is that Americans should look more closely at their social structure as a causal factor in violence.

Carter (2000, p. 72) questioned the causal links suggested in international comparisons. He claimed that economic and social inequality is the real factor at play. If the U.S. were more socially and economically equitable, the levels of gun related violence would be lower. Stephens (1994, p. 22) explains differential crime rates in terms of differing ethnic and racial homogeneity, cultural pluralism, and anomie. He points to the greater emphasis on individualism in the United States and the lower respect for law stemming from greater heterogeneity.

Pridemore (2001, pp. 267, 271) found that Russian homicide rates in the late 1990s were over three times higher than homicide rates in the United States. While the rates had increased as a result of the recent political and social upheaval, the Russian rate had been similar to or greater than the American rate for thirty-five years despite Russian firearm restrictions which contributed to a relatively low gun homicide rate. Further, in contrast to the center-city murder phenomenon exhibited in the U.S., homicide rates in rural areas and small towns were not significantly lower than the homicide rates in large cities.

Finally, Interpol (2003) data reveal that Sweden and the Netherlands have experienced periodic murder rates much higher than the United States. For example, in 1997 Sweden had 9.53 homicides per 100,000, the Netherlands had 10.32, and the United States had 6.80. In 2001, information was unavailable for the Netherlands; however, Sweden had 10.10 murders per 100,000 while the United States had only 5.61.

Other Crime Rates

Although murder rates are higher in the United States than England and Wales, other crimes occurred at a greater rate in England and Wales than in the U.S. Victimization studies showed that robbery, assault, motor vehicle theft, and burglary were all higher in England in 1996 than in the United States (See Appendix I) (Langan & Farrington, 1998, p.2).

Pro-gun advocates claim that the lower incidence of firearm ownership by citizens in England leads to increases in other types of violent crimes. While the United States crime rates have gone down, British rates have gone up. These and similar crime statistics can be used to argue against gun control. "Hot burglaries" where residences are occupied at the time of the offense, are much more likely in Canada and Britain where they constitute nearly one-half of all burglaries. In contrast, hot burglary levels are much lower in the United States, where they constitute only about 13% of all burglaries. Perhaps criminals know residents may be armed

and feel that it is better to wait until they are not home (Carter, 2000, p. 73; Fremling & Lott, 2003, pp. 1345-1346; Kopel, 2000, p. 1222; Kopel, 2001, p. 346; Lott & Mustard, 1997, p. 3; Ludwig, 1998, p. 240; Malcom, 2002, p. 244).

Although not representative of the total population of criminals, convenience samples of convicted felons were found to be apprehensive of encountering an armed citizen and indicated they would be less likely to attempt to victimize someone who they assumed was armed. This “deterrent” effect might carry over to almost any crime, where the threat of an armed victim may discourage perpetrators. As a result, non-gun owners may derive a “free rider” benefit from the gun ownership of others (Fremling & Lott, 2003, p. 1346; Funk, 1995, p. 791; Kopel, 2000, p. 1222; Malcom, 2002, p. 244; Wright & Rossi, 1994; p. 146).

However, as when examining international homicide and suicide rates, international burglary rates should be interpreted with caution. For example, Cook (1991, p. 60) found that half of U. S. burglaries involving occupied residences were perpetrated by relatives and acquaintances. He attributes international variances in hot burglary rates to societal differences rather than any deterrent effect provided by American firearm ownership.

Pro-gun advocates suggest that although the number of legal firearms in nations such as the United Kingdom may be reduced, an illegal stockpile will remain in the hands of criminals. There are an estimated three million illegal firearms in England. In areas such as Manchester (supposedly referred to as “Gunchester” by the police) criminals have easy access to weapons and weapons smuggled from Eastern Europe have been recovered by police (Gorman & Kopel 2000, p. 96). Despite their stringent gun control laws, the Japanese experienced a rise in firearm related homicides during the early 1990s (Messner & Rosenfeld, 2001, p. 19).

Leitzel (1998, pp. 143, 149) argues that the gun control legislation of the United Kingdom (where private ownership of all handguns is now prohibited) would not work in the

United States and would be inappropriate. Part of the reason being that self-protection is not viewed as a legitimate reason for firearm ownership in Great Britain. Because the average British street criminal is relatively certain that a potential victim will be unarmed, it is difficult for Britons to argue that more restrictive firearm legislation could raise the rate of victimization (Leitzel, 1998, p. 147). Of course the situation is not the same in the United States. In his conclusions, Clarke (2000, p. 15) notes that the gun and violence relationship is similar to a "chicken and egg" scenario, where the presence of guns may lead to violence, but violence probably encourages people to buy guns.

Suicide

Instrumentalists and epidemiologists advocating gun control also suggest that reducing the availability of guns may reduce the occurrence of suicide (Christoffel & Christoffel, 1986, p. 781; Kellermann, et al., 1991, p. 23). Because firearm suicides have a 90% success rate compared to 80% for hanging and 23% for poisoning, it could logically follow that reducing the number of firearms would reduce the incidence of successful suicide as other means are less effective (Mouzos, 1999, p. 5).

Pro-gun advocates appeal to international suicide statistics to refute these suggestions (See Appendix F). The United States rate of 7.23 firearm suicides per 100,000 and an overall suicide rate of 11.54 per 100,000, reveals that the use of firearms was the preferred method. Several nations that had a much lower rate of homicide than the U.S. had a higher rate of suicide, even though guns were seldom used. Germany had an overall suicide rate of 15.80. Only 1.23 suicides per 100,000 were committed with a gun. Japan had a 17.95 overall rate, and .04 involving a gun (United Nations 1997, p. 23-24). Ostensibly, the intent of policy interventions would be to limit the total number of suicides and not simply reduce firearm related deaths. From the pro-gun perspective, these figures indicate that if guns are not

available, other methods will be employed. Some go so far as to propose that suicide may also be viewed as a matter of personal choice based on individual circumstances such as declining health and terminal illness rather than a solely destructive social evil (Kates, 1991, p. 122)

Cook (1991, pp. 24-27) argues that higher suicide rates in countries where guns are seldom used do not provide justification for dismissal of an instrumentality effect. He accepts the position that the use of guns in suicides may be an indicator of determination to see the act completed, and he agrees that there is a weaker argument for instrumentality in the case of suicide than with homicide. Although existing studies are often contradictory, he argues that depriving suicidal people of firearms may save lives.

Those opposed to the instrumentalist and epidemiologist perspective argue that these numbers dispute claims of a suicide reduction and reveal a substitution effect where suicide rates are not influenced by gun availability. If guns are not available, other methods may be attempted. As we have seen, this argument is sometimes extrapolated to homicide.

The Slippery Slope

Invariably, international comparisons lead to a discussion of the dangers of an alleged “slippery slope” by gun control opponents. The essence of the slippery slope argument is that registration will force those who have registered their firearms to turn them in once guns are outlawed, as government will know exactly who has them.

Gorman and Kopel (2000, p. 96) pointed out that semi-automatic rifles were easily confiscated following implementation of the 1988 Firearms Act in England as a result of earlier requirements for registration and household inspections by the police. In New York, a 1967 registration requirement for long guns was later used to confiscate semiautomatic ‘assault’ rifles in the early 1990s (Olson & Kopel, 1999, p. 433).

Rosen (2000, p. 52) explained that the virtual “de-facto” ban on handguns in Washington, D.C. and Chicago, was preceded by and accomplished through a registration requirement. A Gallup poll found over 60% of both gun owners and non-owners believed that stricter gun control measures would eventually lead to total disarmament (Blendon, et al., 1996, p. 1721).

International examples of the slippery slope in action are presented as evidence that the same outcomes observed in other countries could occur in the United States. Gun control supporters argue that the slippery slope can be avoided and that what has happened elsewhere need not occur in the U.S. Whatever position one adopts, it is important that policy intervention efforts be preceded by an examination of intervention efforts that have been tried elsewhere (Welsh & Harris, 1999, pp. 14, 15, 59). For this reason, an examination of the experiences of several western industrialized nations with a gun registration system follows.

Great Britain. The first gun control legislation in Great Britain was the Pistol Act of 1903. The Act defined pistols as having a barrel length of nine inches or less, prohibited sales to convicted felons, and minors, and required a license for purchase of a handgun. The license was purchased at the post office after paying a fee. If one intended to keep the pistol only in the home, the license was not required (Kopel, 1992, p. 72; Olson & Kopel, 1999, p. 408).

The British Firearms Act of 1920 required that those receiving a pistol or rifle license show “good reason” and placed responsibility with overseeing the license system with the police. The law did not affect shotguns and air rifles. This law shifted the burden of proof to the citizen. The government did not have to prove that a particular individual or weapon was a threat; rather, the citizen had to prove his or her “good reason” for ownership (Kopel, 1992, pp. 74, 90; Olson & Kopel, 1999, pp. 413, 416).

The Firearms Act of 1936 was similar to the U. S. National Firearms Act of 1934.

However, the 1936 Act banned sawed off shotguns and machine guns rather than requiring a license and registration. In 1936 police began adding a safe storage requirement, though this was an administrative requirement and not one passed by parliament. In 1946, a policy change was announced by the Home Secretary. Self-defense would no longer be considered a "good reason" for issuance of a Firearms Certificate (Olson & Kopel, 1999, pp. 414-418).

The death penalty was abolished in 1965 in Great Britain. Following the murder of three policemen with illegal revolvers in 1966, the public began to demand capital punishment for the culprits. The Home Secretary was averse to capital punishment and wished to "do something about crime" while shifting attention from the death penalty. Following his recommendation, Parliament passed the Criminal Justice Act of 1967, which required registration of shotguns (which were not used in the killings) and issuance of a shotgun certificate following payment of twelve pounds. The Act also restricted transfer of firearms including air guns to minors (Olson & Kopel, 1999, pp. 419-421).

Beginning in the 1970s the police began conducting inspections of homes before granting firearms certificates in order to determine the presence of safe storage. There were no specific requirements that defined safe storage and police departments devised their own requirements locally. Unannounced spot checks were also instituted and police departments began to attempt to reduce the number of guns in the hands of the public (Olson & Kopel, 1999, pp. 421-425). Some may view these laws as "eminently reasonable." However, following the Hungerford Massacre and the murder of fifteen people, semi-automatic and pump-action centerfire rifles were banned in 1988. Following the Dunblane Massacre, which left seventeen dead, all handguns of .22 caliber or larger were banned in 1997. Subsequent modification of the legislation in the same year banned .22 caliber handguns as well. The requirement for

registration meant that the police knew who had guns and where they were kept. The safe storage inspections meant law enforcement officials knew how and where the guns were stored. The public had little alternative but to comply with the confiscation order. The law was so restrictive that shooters on the United Kingdom Olympic Team were forced to leave the country in order to practice (Home Department, 2000, pp. 3; Home Office, 1997b, pp. 2-5; Home Office, 1997c; pp. 1, 6; Lott, 2003, p. 77; Mouzos, 1999, p. 2; Olson & Kopel, 1999, pp. 420-434). There was an attempt to offer a small compensation. For example, owners of small-caliber pistols could elect to receive one hundred pounds or the estimated value of the pistol minus 25% (Home Office, 1997a, p. 4).

Lott (2003, p. 225) claims that when states implement strict gun control, sales may plummet. Following the introduction of new gun controls in 2001, California gun sales dropped 23%, Massachusetts gun sales fell 85%, and in Maryland no handguns were sold during the first 6 months of the year due to legislation which required manufacturers to pay for a ballistic "fingerprinting" program. He believes reduced ownership may be an objective of gun control proponents. Even when no crime reducing benefit is associated with a particular intervention, the law may still find support if it is believed to have the potential for reducing gun ownership. As fewer people own guns or are interested in them, there will be less opposition to increasingly restrictive legislation in the future. Olson and Kopel (1999, pp. 427, 433) shared these concerns.

Australia. Prior to the introduction of state level registration for handguns between 1920 and 1932, there were no gun controls in Australia. As in Great Britain, this legislation was largely a response to a fear of communism rather than crime (Christie, 1999, p. 96). Unlike the United States, most homicides in Australia do not involve gun use. Nonetheless, the national

government has implemented gun bans that affect a wide variety of firearms (Mouzos, 1999, p. 5).

These bans were not a response to an overall increase in gun crime, but to a mass killing (Mouzos, 2000, p. 1). The Australian murder rate had been relatively stable between 1915 and 1998. Between 1979 and 1994, homicide and suicide by firearms actually decreased by 37% and 35% respectively (Mouzos, 2000, p. 2; Christie, 1999, p. 96).

The Port Author Massacre led to the Nationwide Agreement on Firearms. The agreement amounted to a ban on semiautomatic rifles and shotguns, all pump action shotguns and pump action centerfire rifles, and required registration of all guns and licensing of gun owners. Over 600,000 guns were destroyed at a cost of more than \$500 million (Cordner, 1996, p. 1402; Lawson, 1999, pp. 27-28; Mouzos, 1999, p. 2; Parkin, 1998, p. 460).

A Government report issued a few years after the introduction of the law indicated that the “overwhelming majority” of crime guns were illegally obtained or unlicensed. In fact, not even one registered handgun was used in a crime. The report further stated:

In other words, those who commit homicide in Australia are individuals who have circumvented legislation and will be least likely to be affected if further restrictions on firearms ownership are introduced. Any further restrictions will most likely affect individuals who are the law-abiding shooters in Australia who have already ‘made significant sacrifices in furtherance of public safety’ (Mouzos, 2000, pp. 4-5).

Despite the government report, the 1996 registration system paved the way for a ban on more guns and further restrictions. On December 6, 2002, the Council of Australian Governments agreed to prohibit handguns with barrels of less than 120mm for semi-automatics, less than 100mm for revolvers, with a magazine capacity of larger than 10 rounds, and a caliber of greater than .38 (.45 in some special cases). Those who had registered handguns with these characteristics would now have to turn them in. New gun owners could only obtain access to

guns after becoming a shooting club member, completing a 12 month probationary period, and meeting various other criteria. Failure to participate in a minimum number of shooting events would result in revocation of a firearm license (Minister for Justice and Customs, 2002).

New Zealand. Unlike the aforementioned countries, New Zealand is an example of a nation that did not succumb to the slippery slope following introduction of a registration system. In fact, New Zealand abolished its registration system in 1983. Registration was said to be beyond the resources of the police. An audit of 1968 registration submissions was abandoned in 1973 as 66% of entries were so inaccurate that they were unusable (Christie, 1999, p. 98; Kopel, 1992, p. 238). Although recent computer technology could likely alleviate some of these difficulties, the cost of a registration system and its proposed benefits are a source of disagreement as is evidenced in the case of Canada.

Canada. In 1995, Canada passed Bill C-68, legislation requiring the registration of *all* guns. More than 14,000 "assault weapons," "combat shotguns," and handguns of .25 or .32 caliber with barrels of less than four inches were also banned. Because handgun registration had already been a requirement for over sixty years, legitimate registered owners of handguns would have experienced difficulty in subverting the ban. Bill C-68 also increased minimum mandatory sentences for firearms related crimes and placed controls on the sale of ammunition. The law also granted the Prime Minister and his administrators the power to ban other weapons without approval of parliament (Boyd, 1995, pp. 215-216; Hartnagel, 2002, p. 404; Hastings, 1995, p. 221; Mauser, 1996, p. 404; Olson & Kopel, 1999, p. 449; Stenning, 1995, pp. 187, 191).

Critics of the legislation claimed that despite increases in the population and in firearms ownership, trends for gun related homicide and other gun crimes had been stable for twenty years and declining in recent years. However, the proportion of firearms related suicide also

decreased. Over 1,000 of the 1,400 firearms deaths in Canada in 1994 were suicides, the majority of which were committed by elderly men in poor health (Boyd, 1995, pp. 215-216; Gabor, 1995, p. 195; Hastings, 1995, p. 225; Stenning, 1995, pp. 184-185, 191).

Others complained that despite the relatively low and stable gun crime rate the government implemented potentially expensive legislation without providing sufficient details on the cost of the system, identifying what the law was expected to accomplish, or specifying the time period. In essence, there was no action plan. It was also suggested that rather than the result of purposeful planning, the legislation was the result of a "moral panics" engendered by a sensationalist press and manipulated by opportunistic politicians (Stenning, 1995, pp. 184-185, 191). The Canadian experience with firearms registration will be discussed further in Chapter Nine.

In the words of Olson and Kopel (1999, p. 465), "Slippery slopes are not inevitable, but neither are they imaginary." Policy intervention efforts should be informed by an assessment of the potential negative externalities associated with a given course of action. However, "slippery slope" arguments make rational judgments and decisions difficult. Those opposed to gun control may oppose any legislation regardless of the logic, intended outcomes, or potential for results out of fear that it would only lead to increased restrictions, eventual registration, and inevitable attempts at confiscation. Gun control advocates may believe that this resistance reveals an unwillingness to compromise and reach a middle ground.

According to Kleck and Kates (2001, pp. 163-164), one factor which exacerbates the "slippery slope" concern is dishonesty by claims makers. The Coalition to Stop Gun Violence and the Violence Policy Center openly lobby for a complete ban on handguns. Handgun Control Inc. (now the Brady Campaign to Prevent Gun Violence) presents a public platform of "moderate" gun control legislation. This seems a major departure from their previous position.

As early as 1976, the Chair of HCI revealed his organization would employ an incremental approach of modest gains in an effort to eventually eliminate the private possession of all handguns and all handgun ammunition (Kleck & Kates, 2001, pp. 133; Lott, 2003, pp. 225-226).

Kleck and Kates (2001, p. 134) claimed that HCI will not divulge their desired terminal end state and couch their goals in terms of what they wish to do at present. Gun control measures are often referred to as a "good first step" or a "step in the right direction." Although explaining the reason gun control opponents fear a slippery slope, Kleck and Kates (2001, p. 165) pointed out that if slippery slope logic were applied to all social problems, no policy interventions would be possible out of a crippling fear that the solution would be overdone. They believe that it is perfectly reasonable to pursue policy to a predetermined point and stop, but warn of the dangers posed by interest groups in subverting these efforts in order to accomplish their own ends. The purpose here is not to argue that slippery slopes are a given, but rather that at least in the case of gun control they should be considered when contemplating a given course of action.

Those fearing slippery slopes believe that although guns have a destructive capability, they can also be viewed in a positive light. This paper will now turn to an examination of the pro-gun perspective.

CHAPTER SIX: THE PRO-GUN ARGUMENTS

The Pro-Gun Perspective: Guns as the 'Great Equalizer'

The pro-gun position clearly views firearms as a great equalizer, deterrent of violent crime, and a versatile tool used not only for sport, but to protect life and property millions of times each year. Guns can provide a measure of protection for the physically vulnerable and those otherwise incapable of self-defense (Gabor, 1995, p. 200; Gorman & Kopel, 2000; Kleck & Gertz, 1995; Kleck & Kates, 2001, Kopel, 1996; Lott, 2000; Lott & Mustard, 1997; Snyder, 1993).

Advocates of this perspective argue that the protection of one's own life is the most basic and important of all rights. Without this right, others can scarcely be considered to exist. Further, pro-gun advocates insist that if a law abiding citizen is disarmed by the state and later killed, the state is essentially an accomplice to the murder (Hughes & Hunt, 2000, pp. 7-8)

Some view gun ownership as a type of "insurance" against criminal victimization. There are those who may scoff that this is a paranoid, radical or extreme response to crime. However, these advocates point out that the probability of becoming the victim of crime may be five to ten times greater than the likelihood of injury from all natural disasters combined (Kates, 1991, p. 121; Wright, et al., 1983, p. 140).

Under this perspective, the prudence of purchasing home insurance to protect against fire, flood, or earthquakes is seldom questioned, yet the cost of insurance could exceed the one time purchase price of a serviceable used handgun (which if maintained will last practically forever) by twenty-fold (Kates, 1991, p. 121). Some would no doubt argue that insurance policies are not used to kill or injure others. Yet, pro-gun advocates would point out that by adhering to a few simple safety rules, one can guarantee that an accident will never occur and

that the overwhelming majority of American gun owners never use their guns for criminal purposes (Hughes & Hunt, 2000, p. 10).

Southwick (2000, p. 365) claims that Americans are more than seventy-four times more susceptible to violent crime victimization than accidental injury or death from firearms. At least part of the benefit of gun ownership may be peace of mind. Some polls have found that gun owners were less frightened of crime than non-gun owners. An increased sense of security may be viewed as an important contribution to quality of life (Kates, 1991, p. 122; Wright, 1995, p. 65).

Those arguing that guns provide a social benefit reject the instrumentalist and epidemiologist argument in favor of a perspective that emphasizes the importance of individual motivations and free will. In the words of Colonel Jeff Cooper (cited in Kates, 1991, p. 118):

Weapons compound man's power to achieve; they amplify the capabilities of both the good man and the bad, and to exactly the same degree, having no will of their own. Thus, we must regard them as servants, not masters—and good servants to good men. Without them, man is diminished, and his opportunities to fulfill his destiny are lessened. An unarmed man can only flee from evil, and evil is not overcome by fleeing from it.

In very similar language, Kleck (1988, p. 17) describes the relationship between guns and violence:

Guns are potentially lethal weapons whether wielded by criminals or crime victims. They are frightening and intimidating to those they are pointed at, whether these be predators or the preyed-upon. Guns thereby empower both those who would use them to victimize and those who would use them to prevent their victimization. Consequently, they are a source of both social order and disorder, depending on who uses them, just as is true of the use of force in general. The failure to fully recognize this can lead to grave errors in devising public policy to minimize violence through gun control.

While this perspective acknowledges that guns can be used for evil purposes, guns are also seen as providing a social benefit. Rather than focusing on the instrument, a gun is viewed

as an inanimate object ruled by the motivations of the user (Wright, 1995, p. 67). Those who view guns as the “great equalizer” appeal to two primary arguments, the nature and prevalence of defensive gun use and widespread civilian ownership as a deterrent to criminal victimization.

Effectiveness of Defensive Gun Use

The possibility that legitimate defensive gun use is effective, widespread, and may positively impact public safety would have important policy relevance (Cook, Ludwig, & Hemenway, 1997, p. 463; McDowall, Loftin, & Presser, 2000, pp. 1-2). Control measures which fail to discriminate between legitimate and criminal possession of guns could disarm substantial segments of the public, increase the potential for criminal victimization, and turn ordinarily law abiding citizens into criminals while having marginal affect on criminal possession (Ayres & Donohue, 1999, pp. 438-439; Kleck, 1988, p. 18; Kleck & Gertz, 1995, p. 151; Mouzos, 2000, pp. 4-5; Wells, 2002, p. 127).

Studies of the earlier National Crime Survey (precursor to the NCVS), National Crime Panel data, as well as National Crime Victimization Survey data, found that despite being more likely to face multiple attackers and armed assailants, victims who resisted with a gun were less likely to be injured than those who did not resist. Additionally, those who were injured were most likely to receive injury prior to the gun use. Victims who resisted with a gun were also less likely to loose property (Cook, 1991, p. 20, 58; Kleck, 1988, pp. 7-8; Kleck & Gertz, 1995, pp. 151-152; Kleck & Kates, 2001, pp. 289-293; Kopel, 2000, pp. 1229-1230; Schnebly, 2002, pp. 378, 381; Southwick, 2000, p. 351).

Armed victim resistance decreased the likelihood that a perpetrator would complete a rape with no significant increase in the probability for additional injury. It was also found that attacks led to resistance, rather than the attack being the result of resistance (Kleck & Sayles, 1990, pp. 149, 157). Kellermann, et al., (1995, pp. 1761-1762) also found that injury did not

occur when a firearm was employed. One potentially overlooked fact is that armed victims are under no compulsion to attempt a defensive gun use if doing so would make the situation more hazardous. The presence of a gun is simply an alternative option that is available if the situation warrants and conditions are amenable to its use (Kates, 1991, p. 149; Kates, et al., 1995, p. 539; Southwick, 2000, p. 353).

Schnebly (2002, pp. 379-380; 383) points out that the dexterity, strength, and hand to eye coordination involved in employing a gun, in addition to an adversary's perception that the wielder is capable of using the gun generate differing levels of deterrence. He speculates that defensive gun use may provide least benefit for the elderly, women, and those perceived as unwilling or unable to employ a firearm effectively. Likewise, whether an offender is a member of an "honor culture," where high value is placed on the willingness to resort to violence, intoxicated, or under the effects of drugs may result in differing levels of deterrence (Schnebly 2002, p. 382).

Schnebly (2002, pp. 382-384) speculated that those most strongly immersed in an "honor culture" are less attractive targets of violent crime. However, living in a high crime area often makes people victims by default. In these situations, the effectiveness of DGU may be difficult to ascertain. DGUs may be more effective as a deterrent because of a potential victims' willingness to use a gun, or it may be less effective because of the offenders' unwillingness to retreat from the threat of gun use, especially if the offender is the member of a gang.

Examining 1992 to 1999 NCVS assault and robbery data, Schnebly (2002, pp. 386, 388-397), found that overall, DGU significantly decreased the likelihood of injury, but not serious injury. Males involved in a DGU were 57% less likely to be seriously injured than non-DGU males. Effectiveness of DGU for females was dependent upon the relationship between the female and the other party. Female DGU targeted at strangers reduced the likelihood of severe

injury. DGU against intimate partners significantly increased the likelihood of severe injury. It is uncertain whether this may have been the result of an unwillingness to shoot or because intimate partners became enraged by female resistance (Schnebly, 2002, pp. 396-397).

The deterrent effect of defensive gun use was greater for wealthier than poor victims, although no reason was ascertained. Urban DGU was significantly more effective in decreasing the incidence of both mild and severe injury, though rural DGU increased the odds of severe injury and provided no reduction in mild injury. Schnebly (2002, pp. 395-396) indicates that this may have been a result of increased willingness to use force resulting from a "code of the streets" and a resultant perception of this willingness by assailants in urban areas.

Although these two findings are consistent with a differential deterrent effect, some of the other hypotheses were not supported. The deterrent value of DGU was not reduced in situations involving multiple offenders, perceived gang members, or offender drug or alcohol use (Schnebly, 2002, p. 394). Likewise, age, and differences in the race of offender and victim did not modify the outcome. Finally, the study seemed to provide support for the instrumentality effect in that offenders who were armed were less likely to injure their victims, but when injury did occur, it was more likely to be serious (Schnebly, 2002, p. 390).

While studies such as these may seem to lend credence to the effectiveness of defensive gun use, Cook (1991, p. 58) observes that some victims of attack may simply be unable to utilize their firearm. Thus, the data may provide more insight into the peculiarities of a given assault (such as whether the victim was taken by surprise) rather than the presence of a gun. Additionally, the validity of findings such as these is questionable because the NCVS does not reveal instances where a resisting victim is killed (Cook, 1991, p. 58; Schnebly, 2002, p. 395; Wells, 2002, p. 152).

Prevalence of Defensive Gun Use

A central question that is hotly contested the number of defensive gun uses that actually occur within a given year. According to NCVS data, the number of defensive gun uses (DGU) generally consists of between 55,000 to 120,000 cases in a given year (Clarke, 2000, p. 7; Cook & Ludwig, 1997, p. 8; Cook, et al., 1997, p. 468; Hemenway, 1997, p. 1432; Kleck & Gertz, 1995, p. 153; Kleck & Kates, 2001, p. 229; McDowall & Wiersema, 1994, p. 1983; Schnebly, 2002, p. 384; Smith, 1997, p. 1462).

Instances of defensive gun use are often contrasted to gun related crime (Cook & Ludwig, 1996, p. 57; McDowall, et al., 2000, pp. 14-15). If NCVS data are accurate, there is little evidence that defensive gun use provides a beneficial counterbalance to the criminal use of firearms. For example, McDowall and Wiersema (1994, p. 1984) reported that according to the NCVS, incidents where assailants fire guns during the course of a criminal victimization may outnumber defensive gun uses by a ratio of as high as 10 to 1.

However, it should also be noted that low incidence of defensive gun use may reflect the presence of proscriptive legislation rather than the usefulness of guns as a defensive tool. This is especially true when one considers that areas with the highest crime rates often prohibit handgun ownership, or at minimum restrict carrying outside the home.

Defensive Gun Use and the NCVS. Some researchers have suggested that although designed to provide the best available estimate of the extent of criminal victimization, various aspects of the NCVS may lead to underreporting of defensive gun use. The NCVS is most likely the largest and most sophisticated victimization survey known. However, it is argued that the survey's extensive refinement was not intended to produce accurate estimates of defensive gun use (Kleck & Kates, 2001, p. 230-231; Schnebly, 2002, p. 385; Smith, 1997, p. 1462).

The NCVS does not directly inquire whether a victim was involved in a defensive gun use (Kleck & Gertz, 1995, p. 153; Kleck & Kates, 2001, p. 231; McDowall & Wiersema, 1994, pp. 1982-1983; Smith, 1997, p. 1462). Instead, interviewees are asked "Was there anything you did or tried to do about the incident while it was going on?" (Kleck & Kates, 2001, p. 231; McDowall & Wiersema, 1994, p. 1982; Smith, 1997, p. 1462). Responses are coded into one or more of sixteen categories. Among these is "attacked offender with gun; fired gun" and "threatened offender with gun." The respondent is then asked "anything else?" until nothing further is reported. A final cue asks, "Did you do anything (else) with the idea of protecting yourself or your property while the incident was going on?" (McDowall & Wiersema, 1994, p. 1982). Kappeler, Blumberg, and Potter (2000, p. 36) note that a failure to directly inquire about rape in earlier versions of the NCVS contributed to serious underestimates.

Another aspect of the NCVS deemed to be problematic is that the survey polls known respondents, who are informed that that the Bureau of Census is conducting the survey for the U.S. Department of Justice. Thus, respondents are being asked to report potentially illegal behavior (such as assault with a lethal weapon or even unlawful possession in some jurisdictions) to a law enforcement agency, which has complete information regarding their identity and whereabouts. This is viewed as especially problematic since the majority of victimization occurs outside the home. Concealed-carrying a firearm without a permit is often prohibited. Respondents may not know whether their behavior is legal, and therefore wish to avoid potential repercussions resulting from what could have been a felony offense (Clarke, 2000, p. 7; Cook & Ludwig, 1998, p. 113; Kleck & Gertz, 1995, pp. 154-156; Kleck & Kates, 2001, pp.231-233; McDowall, et al., 2000, pp. 5-6).

Others argue that underreporting is unlikely to stem from a fear of reporting incidents to federal law enforcement. Instead, they posit that underreporting is more likely to result from the

NCVS missing DGUs involving less serious crimes, such as criminal mischief, vandalism, or trespass (McDowall, et al., 2000, p. 5; Smith, 1997, p. 1463).

Underreporting of victimization may result in underreporting of defensive gun use. Because victims may not wish to discuss a particular incident, any defensive gun use resulting from the occurrence might go undetected (Clarke, 2000, p. 7; Kleck & Gertz, 1995, p. 155; Schenbly, 2002, p. 385). Additionally, the sequence of questioning in the NCVS would not include any incidents of preemptive defensive gun use that precluded the culmination of an offense. Kleck and Kates (2001, p. 236) argued that this is the most successful type of defensive gun use because of the avoidance of harm to offender or victim.

However, because these situations are by nature ambiguous, others contend that it would be practically impossible for most potential "victims" to be certain of the intentions of "aggressors." From this perspective, the NCVS design aids in the avoidance of overestimates (Cook & Ludwig, 1997, p. 10; McDowall, et al., 2000, p. 6; Webster & Ludwig, 1999, p. 6; Schenbly, 2002, p. 385).

Early "Defensive Gun Use" Surveys. Kleck and Gertz (1995, pp. 153, 157) identified thirteen smaller surveys, which consistently reported much larger estimates of defensive gun use than those provided by the NCVS. Typically, these surveys asked only one or two questions regarding defensive gun use, none were designed specifically to analyze defensive gun use, and the sample sizes were small (600-1500). The smallest estimate next to the NCVS figure was 640,000 defensive handgun uses and a total of 700,000 for all guns. This was a nine-to-one ratio for corresponding NCVS estimates (Hemenway, 1997, p. 1432; Kleck & Gertz, 1995, pp. 153-159; Kleck & Kates, 2001, pp. 215, 229).

A number of deficiencies were evident in these early surveys, ranging from no constraints on recall periods and second-party reporting, to failure to distinguish defensive gun

uses directed at people and those involving animals. Some made no distinction between defensive gun uses involving military, police, or security work and those involving civilians (Clarke, 2000, p. 8; Kleck & Gertz, 1995, pp. 157-160; Kleck & Kates, 2001, pp. 214-215; Hemenway, 1997, p. 1432). The questioning in other serves permitted inclusion of possession for self-protection as defensive gun use, even if no danger was ever encountered and the gun was never used (Kleck & Gertz, 1995 p. 158; McDowall & Wiersema, 1994, p. 1984). Nonetheless, Kleck and Gertz (1995, p. 153) argued that, "The strongest evidence that a measurement is inaccurate is that it is inconsistent with many other independent measurements or observations of the same phenomena."

The National Self-Defense Survey. Discrepancies between the NCVS and these early surveys provided the impetus for the 1993 National Self-Defense Survey or NSDS designed by Kleck and Gertz (1995). This was the first national analysis of defensive gun use based on an instrument specifically designed for the purpose. The NSDS estimated 2.1 to 2.5 million defensive gun uses annually.

These estimates exceeded the NCVS estimates by an even larger margin than earlier studies and indicated that guns are used defensively 4.6 times more often than they are used offensively by criminals. The estimates of defensive gun use produced by the 1993 to 1994 NCVS were less than 5% of those produced by the NSDS (Kleck & Gertz, 1995, pp. 164, 170; Kleck & Kates, 2001, p. 229). These findings were immediately attacked by a host of critics and signaled the start of what Smith (1997) referred to as the DGU War.

In order to better examine the academic debate surrounding these controversial findings, as well as the subsequent DGU studies, a brief discussion of the NSDS as reported in the Kleck and Gertz (1995, pp. 160-163) article is necessary. The survey was stratified by state and consisted of an anonymous random digit dialed telephone poll of respondents aged eighteen or

older in the lower forty-eight states, with over sampling in the south and west, within households for males, and for DGU cases. There were 4,977 completed interviews, resulting in a 61% completion rate. Respondents were queried as to whether they or anyone in their household had used a gun, even if they did not fire it to protect themselves or property within the last five years.

Military, police, and security guard DGU's were excluded. Use against persons was distinguished from protection against animals. Additionally, all reports were reviewed to determine whether a respondent had actually seen a perpetrator and could articulate a specific crime that was being defended against. The gun had to actually be used in some regard. At the minimum it had to be referred to by the respondent or brandished as a threat. A total of 222 incidents of DGU, (six of which were second hand) were reported. All cases involving a report of defensive gun use were verified by call back from a supervisor. The total number of reported DGUs ("A" estimates) was weighted to 2.55 million. When only those cases meeting all of the specifications just cited ("B" estimates) are included, the results are equivalent to 2.16 million DGUs (Kleck & Gertz, 1995).

Responding to their critics, Kleck and Gertz (1995) defend the discrepancy between the findings of their study and the NCVS by explaining that the NCVS frequently underestimates various types of criminal behavior. They cite research by other scholars indicating that the true instance of rape may be thirty-three times higher than NCVS reports, that domestic violence may be twelve times higher, and that the number of NCVS reported gunshot wounds are far too small (Kleck & Gertz, 1995, pp. 155, 168). This argument is not designed to fault the NCVS, only to indicate that the NCVS does not identify all instances of crime. As a result, Kleck and Gertz (1995) contend that the NSDS findings cannot be dismissed simply because they provide large estimates of DGUs in relation to NCVS estimates for a specific crime type.

Kleck and Gertz (1995, p. 167) also attempt to place their findings into the context of firearms prevalence and availability. They contend that 2.1 to 2.5 million DGUs include a mere 1% of all guns and 3% of adults with access to a gun in a given year, which they do not find implausible.

Rejecting the Kleck and Gertz study in favor of estimates closer to the NCVS, McDowall and Wiersema (1994, p. 1984) concede that the NCVS is not without its limitations. They explain that based on records of domestic assaults known to police, only 22.2% of known victims reveal their victimization to NCVS interviewers. The NCVS has also been found to underreport gun shot wounds (Annest, Mercy, Gibson, & Ryan, 1995, pp. 1753).

Kleck and Gertz (1995, p. 170) argued that their findings are likely too low because the NSDS only captures those respondents with a telephone. The poorest households, which are most prone to victimization, were excluded. Likewise rural homes most isolated from police services and where guns are more frequently kept are also underrepresented.

Critics of the Kleck and Gertz study insist that it is fatally flawed and generates “extreme overestimates” (Hemenway, 1997). Further, it is alleged that reporting a defensive gun use is more socially desirable and this, coupled with the rarity of the event creates an overestimation bias (Cook & Ludwig, 1998, pp. 114-115; Hemenway, 1997, p. 1431). That is, because DGUs are quite rare (less than 1% by the larger estimates) there is a much greater potential of generating a false positive than a false negative. Adopting the vernacular of epidemiology, Hemenway (1997, p. 1437) uses the analogy of an overabundance of false positives in medical tests, such as breast cancer screening.

Kleck and Gertz (1997, pp. 1449-1450; 1456) and Kleck and Kates (2001, pp. 254-255; 258-260) agree that in all estimates of a relatively rare event there is a greater potential for false positives than false negatives, but that there is no evidence that there *are* more false positives in

their study than false negatives. They question why this argument is consistently applied to estimates of DGUs, but never applied to the incidence of gun crime victimization. That is, since less than 1% of Americans are actually victimized by gun crime in a year, only 1% could give a false negative, whereas 99% could provide false positives. They contend that following the logic of their critics to its conclusion would mean that the NCVS must grossly overstate gun crime frequency and the need for stricter controls. However, they insist that surveys underestimate "all other known crime-related experiences" and question why the NSDS is different. They insist that no study is perfect, and rather than rejecting their finding on the basis of problems that *may* exist, their critics would be better served by providing evidence rather than speculation.

They also contend that participants reporting a DGU were asked nineteen further questions, and subject to supervisor callback validation. They insist that it would have been more difficult to generate a false positive than the simple "no" required for a false negative. These nineteen follow-up questions and supervisory validation also constitute the Kleck and Gertz (1997, pp.1459-1460) response to Hemenway's (1997, p. 1433) charges that the survey was conducted by employees of Dr. Gertz, who likely knew the purpose of the interview and which results would be most pleasing. They complain that this is libel, based on no evidence other than speculation. An incident fabricated by an interviewer would have been detected unless supervisors were involved in the conspiracy.

Kleck and Gertz (1997, p. 1447) also impugn Hemenway's (1997) motives. They point to Hemenway's (1997) "close ties" to Handgun Control Incorporated and the Center to Prevent Handgun Violence. Ostensibly, this is intended to undermine Hemenway's (1997) credibility in the same manner that he attempts to undermine theirs.

Examining the possibility for false positives, Smith (1997, p. 1465) suggests that both Hemenway (1997) and Kleck and Gertz (1997) have some valid points. However, he concludes that over reporting is more likely because Kleck and Gertz's (1995) follow up did not provide an independent test. Rather, if a person fabricated a DGU, they would likely repeat the misrepresentation on the follow-up interview. While the follow-up may be helpful for detecting miscoding and interviewer error, it is not likely to detect false reports. Smith (1997, pp. 1465-1466) rejects both Hemenway's (1997) and Kleck and Gertz's (1997) arguments of underreporting or over reporting stemming from either the perceived social desirability or undesirability of DGU use. There have been no empirical studies to provide evidence for either position as regards DGUs.

Hemenway (1997, p. 1431) states that, "All checks for external validity of the Kleck-Gertz finding confirm that their estimate is highly exaggerated." Kleck and Gertz (1997, p. 1460) retort that Hemenway and Kleck served together on the Advisory Committee of a National Institute of Justice sponsored study conducted by the Police Foundation. They contend that the National Survey on Private Ownership of Firearms (NSPOF) (which will be discussed later) nearly duplicated their findings exactly. Therefore, Kleck and Gertz (1997, p. 1460) question both the basis for the Hemenway (1997, p. 1431) assertion, as well as his reasoning for concealing the existence of research that supported their findings. Additionally, they query his reluctance to provide any suggestions for improvements to the Advisory Committee if he believed that the NSPOF study was flawed.

While much of the Hemenway (1997) article is based primarily on speculation and often deteriorates to analogies and innuendos that seems out of place in an academic journal (such as references to UFO sightings and the mentally ill), there are some reasonable criticisms of the Kleck and Gertz (1995) study. First, Hemenway (1997, p. 1434) points out that Kleck and

Gertz (1995, pp. 161-162) over sampled in the west and south, as well as for males in households and that data were later weighted. However, the actual method of weighing is never revealed to readers.

Although Hemenway (1997, p. 1434) suggests that the Kleck and Gertz's (1995) finding of a 38% of household ownership estimate is too low and outside the range of all other national studies, this estimate is essentially the same as that generated by Cook and Ludwig (1997, p. 1-2) who estimated a household ownership rate of between 38% and 43%. Additionally, Hemenway (1997, p. 1434) notes that the Kleck and Gertz (1995) estimate of the black population is 3.6% lower than 1992 census data (possibly because of the telephone requirement for survey response).

Probably the most persuasive argument is that the DGU estimates generated by Kleck and Gertz (1995) seem excessive in relationship to the NCVS estimates for various crimes, and gunshot wounds (Clarke, 2000, p. 8; Hemenway, 1997, pp. 1441-1443; Smith, 1997, p. 1467). In the case of non-commercial burglaries of occupied residences, DGUs estimates may even exceed the total number of burglaries reported (Clarke, 2000, p. 8; Hemenway 1997, pp. 1441-1443).

Kleck and Gertz (1997, pp. 1452-1454) suggest that criminals with less serious gunshot wounds not receive medical attention, but agree that estimates of wounding may have been excessive. There was no attempt to ascertain how the defender knew they had wounded an aggressor. They defend the overall integrity of the estimates on the basis that a subset of survey data may be distorted without impacting final validity. Gallup Polls, which may be unable to determine voting patterns of certain small segments of the electorate while still accurately predicting overall election outcomes is recommended as a suitable comparison.

Citing their case study of 79 jail detainees, May, Hemenway, Oen, and Pitts (2000, p. 130) reject suggestions that individuals injured during the commission of a criminal act are unlikely to seek professional care. These authors found that 92% of those wounded sought hospital attention. Additionally, 33% required hospitalization for more than seven days, while 54% were wounded in the head or torso.

Another critique of large defensive gun use estimates is the potential for false positives as a result of “telescoping” DGUs from outside the reporting period. The NCVS avoids this through bounded six-month follow up surveys, which is preferable to the “one-shot” Kleck and Gertz (1995) survey (Cook & Ludwig, 1998, p. 114; Hemenway, 1997, p. 1439; Smith, 1997, p. 1463; Webster & Ludwig, 1999, pp. 6-7). Kleck and Gertz (1995, p. 163) insist that telescoping is not an issue because respondents are equally as likely to forget. Others reject this reasoning because of the “saliency” of a DGU incident (Smith, 1997, p. 1463).

Although Hemenway (1997) addresses potential overestimation problems arising from telescoping in general, he does not specifically address a particularly confusing aspect of the NSDS data. Kleck and Gertz (1995, p. 164) report they did *not* establish the number of DGUs occurring during the one year recall period, although that question was asked and both a five year and one year estimate are reported (Kleck & Gertz, 1995, pp. 161-162). As a result, a “conservative assumption” estimates one DGU use per past year based on the five-year recall period. This would seem to indicate that if an individual or household reported one incident for a five-year period, it would also be assumed that a DGU occurred within the last year and in all previous years. Machinations such as this could potentially result in an estimate being inflated as much as 500%! Additionally, if the one-year estimates are actually extrapolated from five-year estimates, suggestions of telescoping could have even more merit.

At times, Kleck and Gertz (1995) seem to share some of the same biases of their critics, as well as inconsistent logic. First, Kleck and Gertz (1995, pp. 169-170) argue that the NCVS estimate of gun crime are excessive and tend to inflate the prevalence of these incidents. Included may be cases in which the victim did not see a gun, and merely inferred its presence. They contend that the only gun crimes that can be certainly counted are, "...those in which they shot at a victim; but these were only 16.6% of 'handgun crimes' reported in the NCVS from 1987 to 1992" (Kleck & Gertz, 1995, p. 169).

However, pages later, Kleck and Gertz (1995, p. 181) refer to defensive gun estimates which count only those in which a criminal is killed as "silly" and insist that this is an unsatisfactory manner of counting any of the benefits of defensive gun use. Likewise, Hemenway (1997, p. 1439) points out that although Kleck and Gertz (1995) adamantly refuse to believe a substantial portion of their respondents could have fabricated DGU incidents, they are quite willing to make the assumption that a much larger sample of NCVS respondents falsely deny DGUs.

McDowall and Wiersema (1994, p. 1984) explained that victimization studies (and by extension the NSDS) consider only the respondent's perspective, which could result in overestimates of defensive gun use. They cite Wright and Rossi's (1994), survey of incarcerated felons, which found that 63% of offenders who fired a gun during a crime justified their behavior as self-defense. Likewise, Wells (2002, p. 132) contends that 46.8% of DGU incidents in the NSDS, and 47% of those reported in the subsequent National Survey of Private Ownership of Firearms (NSPOF) conducted by Cook and Ludwig (1998), were not precipitated by a threat or attack directed against the defender.

Examination of the firearm ownership and gun control issues in terms of social costs versus benefits certainly invokes elements of an econometric approach. However, interpretive

inquiry (and the role of act and action meaning) may also be used to explore important questions. For example, when examining the social desirability of defensive gun uses it is important to examine the circumstances surrounding the incident. Was it a socially desirable, ethical, or legal intervention? Was it simply an instance of someone using a gun in a situation where they were in little danger of actual harm, thereby assuming the role of an aggressor in an otherwise ambiguous situation? Kleck and Gertz (1995, p. 163) did not attempt to answer these questions. Wells (2002, p. 128) explains that this is a weakness that needs to be addressed in order to satisfactorily determine the costs and benefits of widespread ownership and the desirability of regulation versus deregulation.

DGU or DGU Plus? Wells (2002, p. 134) collected information from 704 convicted male offenders regarding defensive firearm use. Like an earlier survey conducted by Wright and Rossi (1994) this was a convenience study, and findings cannot be generalized to the population as a whole or to all criminals. Additionally, the study was not primarily intended to study defensive gun use. However, the study's findings did provide some insight into dynamics of defensive gun use.

Because research following the Kleck and Gertz (1995) study indicated that a significant portion of defensive gun use may actually reflect offensive behavior, Wells (2002, pp. 138-139) created a subcategory of DGU which he designated DGU-Plus. If the defender persisted employing the gun after the attack ceased or the perpetrator attempted to leave the area the incident was labeled DGU-Plus. Additionally, if it was uncertain whether the defensive gun use was "necessary" the attack was deemed DGU-Plus.

Instances of DGU were deemed unnecessary if they were in response to attacks generated from across substantial distances (such as across a street), between barriers (into homes), and made from moving vehicles or toward vehicles traveling away from the defender

(Wells, 2002, p. 139). Several problems become apparent with the arbitrary definition of “necessity.” First, consider the attack from across a street scenario. Even if an attacker were wielding or even firing a gun at the defender, if the defender presented a gun or returned fire, the DGU would seem to be “unnecessary.” Second, if someone were firing into a home, or if armed adversaries were forcefully entering into a residence occupied by an outnumbered or much smaller defender, the defender would be “unnecessarily” executing a DGU-Plus because the DGU is in response to an attack generated between barriers. This would seem to be true even if the defender merely displayed the weapon in order to avoid any further altercation.

Nonetheless, Wells (2002, p. 142) reported that 27% of the cases he studied represented DGU-Plus scenarios. Additionally, Wells (2002, p. 145) found that if an individual was injured during a DGU, the injury generally occurred before the deployment of the gun. The attacks that Wells (2002, pp. 145-146) labeled as DGU-Plus were more likely to involve strangers, less likely to incur injury, more likely to be precipitated by aggressive behavior against the defender, and usually began with an attack or attempted attack. DGU-Plus defenders were nearly twice as likely to be confronted by gun wielding attackers, who fired at the defender in 80% of cases.

Because of the more serious nature of the attack faced by DGU-Plus defenders, Wells (2002, pp. 147-148) speculates that these individuals may have not only intended to defend themselves, but to punish their attackers. Additionally, he notes that his population consists of “...serious, convicted offenders who may be more willing to use violence across conflict situations...” thus the prevalence and nature of DGU-Plus in this study may be significantly different from the population as a whole (Wells, 2002, p. 150).

The majority of respondents indicated that they would not have gone to the location where the incident transpired unarmed. Despite the fact that the locations given included the street and city parks, it is implied that gun carrying reduces discretion in avoiding potentially

dangerous situations (Wells, 2002, pp. 147-148). Wells (2002, p. 152) states that if gun possession encourages risky behavior then any social desirability of gun carrying could be nullified. While this may be true, it should also be considered that one should not have to be afraid to walk in the street or be afraid to leave one's home.

While the Wells (2002) study does provide an important reminder that a cost-benefit analysis will be incomplete in the absence of a better understanding of the complex personal interactions involved in instances of defensive gun use, the study also illuminates the difficulties in making these value judgments. For example, the seriousness of the responses by "DGU-Plus" defenders may be more a result of the situational variables of their attack than an attempt to punish the aggressor. Finally, using the criteria mentioned above, there was a 25% disparity between the incidents that Wells (2002, p. 154) and an independent coder designated as DGU-Plus. While relatively small, it does reveal the importance of ethical and value judgments.

McDowall and Wiersema (1994, p. 1983) reported that assaults (particularly those involving family and acquaintances) are the most underreported crime in the NCVS, and speculate that perhaps assaults involving defensive firearm use may likewise be the least frequently reported. According to Wells and Horney (2002, p. 277), assaults are more likely to be characterized by "mutual combat" and consist of a more complex pattern of interaction than robberies.

Presumably, if a large portion of defensive gun uses involve assaults, it would be difficult to ascertain whether these were truly defensive gun uses or incidents of mutual combat. However, according to data compiled from the National Self Defense Survey, no more than 19% of all defensive gun use was solely related to assault, and only 11% involved assault against a male victim. Kleck and Gertz (1995, pp. 174; 1997, p. 1450) and Kleck and Kates (2001, p. 314) cite these findings as unsupportive of the "mutual combat" hypothesis.

The National Survey of Private Ownership of Firearms. Following the Kleck and Gertz (1995) study, the National Institute of Justice provided a grant to the Police Foundation to examine American use and ownership of firearms. This study was known as the National Survey of Private Ownership of Firearms. The 1994 NSPOF polled 2,568 American adults using random digit dialing, and was modeled closely on the Kleck and Gertz (1995) study. Although having a smaller sample size and lower response rate (between 44 to 55%) more follow-up questions were asked (Cook & Ludwig, 1997, pp. 4, 8).

Respondents answering, "Yes" to a DGU, were asked thirty additional questions. A total of 23 million incidents of defensive gun use involving 3.1 million Americans were inferred from the results. Adopting the Kleck and Gertz (1995) criteria, which excludes military, law enforcement, and security uses; uses against animals; situations where a perpetrator was not seen; and instances where a crime could not be articulated or the respondent did not actually use the gun (i.e. at a minimum present or refer to it) the researchers arrived at an estimate of 4.7 million DGUs per year, and 1.5 million defenders (Cook & Ludwig, 1997, pp. 8-9; Cook & Ludwig 1998, p. 121).

Although both Cook and Ludwig (1996; 1997; 1998) were the principal investigators for the project, they reject its findings. Overestimates of wounding and defense against an implausible number of crimes in comparison to NCVS reports are cited as evidence that the number of defensive gun uses is unwarranted and excessive (Cook & Ludwig, 1996; 1997; 1998; Cook, et al., 1997). It has also been proposed that National Rifle Association members may be aware of the ongoing research and are fabricating responses in order to inflate defensive gun estimates, confound research efforts, and prevent further restrictive legislation (Cook, et al., 1997, p. 467).

Cook, et al., (1997, p. 468) conclude that although surveys can quite competently measure a variety of behaviors, they are essentially unsatisfactory for studying DGUs. The authors recommend that either NCVS data be accepted, or researchers develop a screen to eliminate false positives.

Kleck and Kates (2001, pp. 258-259) argue that the only acceptable method of “adjusting” DGU estimates in the view of critics focuses exclusively on removing false positives and making the estimates smaller. They also note that although interviewers’ judgments were the basis for excluding DGUs which may have been fabricated from NSPOF estimates, nothing was done to adjust for instances where respondents were believed to be concealing the existence of a DGU. They suggest that Cook and Ludwig (1997) are not entirely honest with their readers when they insist on the greater likelihood of false positives than false negatives and question why Cook and Ludwig (1997) never reveal that interviewers believed false negatives were 4.6 times more frequent in the NSPOF than false positives. This is cited as the only direct evidence of a potential false negative to false positive ratio.

The NSPOF also collected data on the number of crimes perpetrated against respondents by armed assailants (Kleck & Kates, 2001, p. 266). There were only nine cases of encountering an armed perpetrator, indicating a defensive gun use (38) to criminal gun use ratio of more than 4:1. Kleck and Kates (2001, p. 266) complain that these data are not reported anywhere by Cook and Ludwig. The only estimate of gun crime victimization to DGUs found in any discussion of the NSPOF is based on the NCVS data. The NCVS provides data favorable to a pro-control perspective. While this may be true, it also presents a problem for the pro-gun advocate. If defenders were only facing armed assailants in less than one fourth of defensive gun uses, what were the circumstances that made employment of a gun necessary?

Subsequent DGU Surveys. At least four additional DGU surveys followed the NSPOF (Kleck & Kates, 2001, pp. 226-230). A Washington Post poll (Morin, 2000, p. B5) found that 8% of interviewees reported having used a gun to protect themselves or property sometime during their lifetime. A Gallup Poll (Gallup Organization, 2000) reported that not including military service, 7% of respondents had used a gun to protect themselves. Like many of those identified by Kleck and Gertz (1995), these polls did not distinguish between defense against people and animals, included police and security uses, and used a lifetime recall period. Applying adjustments to the two polls to compensate for these disparities, Kleck and Kates (2001, p. 229) determined that these survey yield 2,415,448 and 1,704,449 defensive gun uses each year respectively.

A third survey sponsored by the Center for Disease Control and Prevention (Ikeda, Dahlberg, Sacks, Mercy, & Powell, 1997, p. 363) examined firearm retrievals in response to perceived home intrusions. The authors reported that extrapolating the results of their study to the U. S. population would indicate 1,480,647 firearm retrievals in which no intruder was observed and an additional 1,001,127 retrievals where an intruder was seen. The latter estimate (where an intruder was seen) is approximately 16% higher than the National Self Defense Survey estimates of 861,853 defensive gun uses in response to burglary (Kleck & Kates, 2001, p. 227). Kleck and Kates (2001, pp. 227-228) also extrapolate the findings of a fourth study (Azrael & Hemenway, 2000) to yield approximately 690,798 defensive gun uses. While the number of defensive gun uses may have been substantially higher than the NCVS, a review of the report for this survey reveals a focus considerably different from the earlier Kleck and Gertz (1995) NSDS or the Cook & Ludwig (1996; 1997) NSPOF.

The Azrael and Hemenway (2000) study examined defensive gun use (though no overall prevalence estimates were constructed by the authors), the incidence of hostile gun use, and the

use of weapons other than guns in home defense. Using a nationwide sample of 1,906 respondents stratified by state and a five year recall period, the authors found that hostile gun uses outnumbered defensive gun uses by a margin of 5:1. Additionally, nearly as many respondents reported a hostile gun use in the home as reported a defensive gun use to protect against intruders. The use of other weapons for protection was much more common than guns, and nearly 86% of defensive gun use occurred away from the home (Azrael & Hemenway, 2000, pp. 289-290).

This study is beneficial as a reminder that defensive gun use numbers alone tell only an incomplete story. However, the weakness of this study is reminiscent of the earlier Kellermann et al., (1993) study that the authors cite. The authors did not ascertain whether the gun involved in the hostile display was bought in from outside the home or was the property of the respondent (Azrael & Hemenway, 2000, p. 290). This is an important distinction that must be made before arriving at any conclusions about the dangers of gun ownership in the home. If the gun kept in one's home is not a source of injury, intimidation, or violence, and is only used defensively, it is difficult to argue that keeping a gun in the home presents a danger to the occupants. Indeed, that someone may bring a gun inside a residence and threaten the inhabitants could be an argument to encourage gun ownership.

Finally, the finding that the majority of defensive gun uses occurred outside the home, although inconsistent with earlier studies, indicates that restricting defensive gun use analysis to home use can conceal important information. This may be especially relevant with the increased number of states adopting non-discretionary concealed carry legislation during the last decade.

As Kleck and Kates (2001) point out at least nineteen surveys have generated defensive gun use estimates several times larger than the NCVS. Further, the studies are roughly

comparable. Lott (2003, p. 59) reported that he conducted two surveys which found over 2.1 million defensive gun uses annually. In 98% of the incidents the gun was simply brandished. This would result in 21 surveys which have consistently reported much larger estimates of defensive gun use than the NCVS.

McDowall, et al. (2000, pp. 10; 13-15; 17) conducted a survey designed to determine why these differences persist. They asked respondents questions modeled after those found in the defensive gun use surveys as well as the NCVS. One half of respondents were asked NCVS questions first, while the other half were asked the DGU question first. Respondents were more likely to report defensive gun use in response to the DGU type questions.

Methodological differences between the surveys may lead to differential response rates. Increased response to the "gun survey" questions may be due to the direct nature of questioning which aids in recall. Alternatively, removing NCVS "safeguards" against false reports (failing to ask about criminal victimization first) may contribute to the increase. As already suggested, because many defensive gun uses occur in response to "suspicious" situations, where offender intentions may not be clear, the two surveys designs may also be measuring different phenomena. Therefore, the surveys were found to produce variable estimates due to both content and methodological factors (McDowall, et al., 2000, pp. 13, 17).

Regarding DGUs, Smith (1997, p. 1462) notes, "The estimates are wide apart and their academic champions staunchly defend their respective figures as correct and accurate, while dismissing the opposing figures as invalid and implausible." In his "A Call for a Truce in the DGU War," Smith (1997, p. 1468) rejects the lower figures generated by the NCVS and the high end estimates generated by the NSDS. Instead of argument and speculation, he calls for more studies and improved data. He also recommends refined analysis of the Kleck and Gertz

study, the National Survey on Private Ownership of Firearms, the NCVS, and other DGU studies.

Defensive gun use essentially modifies the situational dynamics of a crime in progress and is therefore not synonymous with deterrence. True deterrence precludes the commission of a crime to begin with. However, wounding, firing at, or even threatening an offender with a gun might provide specific deterrence to that perpetrator in future situations or general deterrence to others. Therefore defensive gun uses could potentially not only affect the situation at hand, but have future impacts as well (Green, 1987, p. 64; Kates, 1991, pp. 116, 155).

It follows then that simply analyzing the nature and prevalence of defensive gun use provides little insight into the number of crimes that are deterred (never attempted) by an armed citizenry. Additionally, defensive gun use is a relatively rare phenomenon. The small number of defensive gun uses reported in the National Self Defense Survey, National Survey of Private Ownership of Firearms, and other studies confound analysis of the situational dynamics, and social desirability of defensive gun use. Additionally, previous studies have concentrated primarily on developing estimates of the number of incidents rather than the ethical, moral, and legal implications of these uses.

Guns as a Deterrent

It has been argued that the consequences for attempting to victimize an armed citizen would be swifter and more certain than provided by the criminal justice system, and ostensibly provide a far greater deterrence effect (Funk, 1995, p. 790; Kleck, 1988, pp. 12, 16). However, determining the deterrent effect of legislation is difficult and can be colored by a researcher political leaning on the gun control issue (Green, 1987, pp. 68-69; Kates, 1991, p. 133).

Increased firearm related crime rates in areas with few restrictions and heightened levels of ownership could lead to the conclusion that less stringent firearm regulations contribute to

higher gun crime rates. By the same token, the same phenomena could be viewed as evidence that citizens are acquiring firearms in reaction to increased levels of crime (Green, 1987, pp. 68-69; Kates, 1991, p. 133).

If an area with less stringent gun regulations had low levels of crime, it could be argued that an armed citizenry provided deterrence. An opposing rationale would be that these areas have experienced little incentive to enact controls, whereas those cities with restrictive legislation enacted control measures in response to high crime rates (Green, 1987, pp. 68-69; Kates, 1991, p. 133).

As a result, just like estimates of defensive gun use, the deterrence effect of firearm ownership is a source of considerable disagreement. A sharp increase in the number of rapes in Orlando, Florida in 1966 prompted the Orlando Police Department to provide a highly publicized program designed to train women in defensive firearms use. The program ran between October 1966 and March 1967 (Cook, 1991, p. 61; Kates, 1991, p. 153; Kleck, 1988, p. 13; Kleck & Bordua, 1983, pp. 284-287; Kleck & Kates, 2001, p. 321).

Orlando experienced an 88% decline in reported rape between 1966 and 1967. A comparison of Orlando with the remainder of Florida, bordering metropolitan areas, and U.S. cities with a population of more than 100,000 reveals that no other city experienced so large a decline. This was not a continuation of a downward trend and the change was said to be greater than could be anticipated based on past variances (Kates, 1991, p. 153; Kleck, 1988, p. 13; Kleck & Bordua, 1983, pp. 284; 286-287).

On closer examination, the findings are not as simplistic as may first appear. While the city did have an 88% drop in recorded rape between 1966 and 1967, there was a 58% decrease in 1959 and 1960, an 88% decrease between 1961 and 1962, and a 100% decrease between 1962 and 1963. Therefore the differences may be largely due to recording practices of the

police and/or extreme between year fluctuations, largely negating the significance of the 1966 to 1967 reduction (Green, 1987, pp. 74-75; McDowall, Lizotte, & Wiersema, 1991, pp. 545-547).

Wright and Rossi (1994, pp. 145-146) found that 56% of a sample of incarcerated felons agreed, "A criminal is not going to mess around with a victim he knows is armed with a gun." Approximately 74% agreed that burglars avoid houses when people are home because they might be shot. Additionally, 58% agreed that if a shopkeeper is considered armed, he is unlikely to be robbed often.

As already noted, surveys of this type are not representative of the population as a whole, or even the population of felons. However, it may also be suggested that inmates such as these are among the least likely to be deterred (as evidenced by their current incarceration). Thus, at least some insight may be provided regarding the potential of crime deterrence through civilian gun ownership (Kleck, 1988, p. 12; Kopel, 2001, p. 355).

McDowall, Loftin, and Wiersema (1995b, pp. 193-194; 198; 202-204) examined the introduction of non-discretionary concealed carry laws and the effects on homicide in five locations: Dade, Duval, and Hillsborough County, Florida; Hinds County, Mississippi; and Clackamas, Multnomah, and Washington Counties (combined), Oregon. Non-discretionary laws require that individuals otherwise eligible for gun ownership be granted a concealed weapons license. These researchers reported that the laws were strongly and significantly correlated with an increase in firearm-related homicides in three of the areas and one area exhibited an insignificant decline. Overall homicides revealed inconsistent patterns. At a minimum, they concluded that there is no homicide reduction benefit associated with the concealed carry legislation. More importantly, they reported that these laws could result in increased firearms-related death.

Using county data from Uniform Crime Reports (UCR), Mortality Detail Records, and UCR Supplementary Homicide Reports, Lott and Mustard (1997, pp. 1, 6, 29; 48-49) analyzed information from all 3,054 US counties from 1977 to 1992. They determined the introduction of non-discretionary concealed-carry legislation led to a reduction in violent crime and a rise in property crime as criminals avoided confronting a potentially armed victim.

Additionally, Lott and Mustard (1997, p. 65) argued that there was no significant increase in the incidence of fatal accidents with guns. They claim that if states without this legislation had introduced it, there would have been approximately 9 additional fatalities. However, the net reduction in total deaths would have been between 1,405 and 1,583. The estimated savings was \$6.6 billion. The authors conclude, "...concealed handguns are the most cost-effective method of reducing crime thus far analyzed by economists, providing a higher return than increased law enforcement or incarceration, other private security devices, or social programs like early educational intervention" (Lott & Mustard, 1997, p. 65).

Black and Nagin (1998) contend that these findings are not warranted. Their reanalysis of the data set was unable to reach any consistent conclusions. When only counties with a population of 100,000 are included, Florida is eliminated from the sample, and when different model specifications used, the results are inconsistent. Although violent crime fell in some areas, it increased in others. As an example, they report that murder increased 105% in West Virginia (Black & Nagin, 1998, pp. 211; 213-214).

Black and Nagin (1998, p. 213) critiqued the Lott and Mustard (1998) study as assuming the affects of non-discretionary concealed carry legislation is the same across states and constant over time. Murder, assault, and rape are said to have already been in decline prior to the introduction of these laws (Black & Nagin, 1998, p. 215). The authors conclude, "...inferences

based on the Lott and Mustard models are inappropriate, and their results cannot be used responsibly to formulate public policy” (Black & Nagin, 1998, p. 219).

Lott (1998, p. 221) retorts that his model did not assume effects of the legislation were the same across states or consistent over time and cites quotes from the initial study in response to each of these critiques. Lott (1998, pp. 221; 243) insists violent crime was increasing prior to the introduction of concealed carry legislation and declined after the laws passed. An examination of crime rates 2-3 years before the law and 2-3 years after masks these trends. If violent crime rates resembled an inverted “v” with the apex corresponding to the year in which the legislation was enacted, one can pick years on either side of the pinnacle with similar rates if the appropriate parameters are defined (Lott, 1998, p. 228).

Excluding Florida is reported to have impacted less than 1% of regressions. Additionally, the observation for an increase in murder for West Virginia is based on only one of fifty-four counties. Eliminating counties with populations of less than 100,000 eliminates 86% of aggravated assaults (Lott, 1998, pp. 221, 224, 235). Nonetheless, using only these larger counties is said to reveal a decline in violent crime in nine of ten states. Indeed, the original Lott and Mustard (1997, p. 31) article contended that larger counties exhibit a greater decline in violent crime rates.

Using the Lott and Mustard (1997) data set, and projecting crime rates for counties without non-discretionary concealed carry laws if the legislation had been introduced, Dezhbakhsh and Rubin (1998, pp. 469, 472) concluded that only six states would realize a reduction in murder rates. The rates in 27 others would have been unaffected. They found little evidence of an influence on rape, and a significant increase in robbery in most of the states. The states spending the most on police were most likely to experience a benefit, presumably because

they are most capable of minimizing criminal access to guns without interfering with the deterrence effect of an armed populace (Dezhbakhsh & Rubin, 1998, p. 473).

At least some of the variance in findings may be explained by "model uncertainty." When different scholars specify different models and substitute different controls, different conclusions are possible (Bartley & Cohen, 1998, p. 258). Bartley and Cohen (1998, pp. 258, 261, 265) conducted 1,024 regressions with different model specifications. They reported robust evidence of a deterrence effect for violent crime following the introduction of concealed carry legislation. Moody (2001, pp. 799-800; 812) also reported a robust relationship and concluded that these laws reduce violent crime.

Concealed carry legislation is confined to adults who are otherwise legally permitted to own a firearm. Ludwig (1998, pp. 239, 245) postulated that any deterrence stemming from the introduction of this legislation should therefore be primarily confined to adults. By comparing the difference between adult and juvenile homicide rates, this study attempted to minimize the effect of intervening variables that could influence the extent of victimization. Juveniles were considered a "natural control." Although deriving no benefit from non-discretionary concealed carry legislation, they would be affected by other state-specific factors (such as the prevalence of gangs or growth of crack markets) that are important determinants of the homicide rate. This study concluded that introduction of these laws were more likely to lead to increased rates of homicide (Ludwig, 1998, pp. 241; 252).

However, Lott (2000, pp. 147-148) contends that a number of potential explanations exist for a failure to observe differences between juvenile and adult homicide rates. The presence of gun carrying adults may provide a protection benefit to juveniles. Additionally, criminals may be unable to distinguish between a 20 and 21 year old. Criminals may also abandon areas where non-discretionary concealed carry legislation has been passed. For

example, Lott (2000, pp. 91-94) found that while counties in states that adopted concealed carry legislation experienced a drop in violent crime, adjoining counties across state lines in states without such legislation experienced an increase in violent crime. Lott (2000) later expanded the data set to include county information until 1998. The findings of that study (discussed in the introduction) are reported to have confirmed previous evidence of a deterrent effect and a reduction in crime in non-discretionary concealed carry states.

Plassmann and Tideman (2001, pp. 771; 796-797) examined the effects of non-discretionary concealed carry laws on homicides, robbery, and rapes. They found statistically significant deterrent effects in most of the 10 states that adopted these laws between 1977 and 1992. However, they also noted that some of the states exhibited statistically significant increases in some of these crimes. They concluded that the intended deterrent effects are not always realized and there are risks to implementing these laws. The outcomes vary across locales. Yet, they also contended that preventing law-abiding citizens from carrying concealed handguns when criminals have access to weapons is also risky, as the laws on average do reduce the number of violent crimes. Their cautions are similar to those of Ayres and Donohue (1999, p. 466) who warned that while these non-discretionary concealed carry laws may be appropriate measures in some states, their adoption in others may have adverse consequences.

Duggan (2001, pp. 1087-1089) used sales of *Guns & Ammo* to measure changes in gun ownership. This magazine has the fourth largest sales of any gun magazine in the United States and is more focused towards handguns than the three largest magazines. The magazine also has information on county level sales making it suitable for use with county level crime data.

Several factors indicate that this measure may be a valid proxy for gun ownership. First, the characteristics of individuals who purchase the magazine are similar to those of gun owners in general (e.g. race, age, income, region of residence, etc...). Second, the number of gun

shows in a state was positively and significantly associated with sales of the magazine.

Third, states with high sales of the magazine also had significantly higher rates of gun suicides.

Fourth, magazine sales were significantly higher in states with larger per capita NRA membership. Finally, GSS surveys indicated that states with the highest rates of gun ownership also had significantly higher sales of this magazine (Duggan, 2001, pp. 1091-1093).

Duggan (2001, pp.1086, 1088, 1098, 1100, 1104) reported that his findings contradicted the results of the Lott and Mustard (1997) study. He found that concealed carry legislation was not associated with increased rates of gun ownership. Those counties with the highest ownership rates did not exhibit a greater reduction in crime than those with low gun ownership. He could find no deterrent effect on violent crime. More importantly, he reported that gun ownership was positively and significantly related to *increased* rates of homicide. Additionally, gun ownership had a greater impact on homicide rates than homicide rates had on gun ownership, meaning that people were not buying guns in response to increased homicide rates.

Lott (2003, pp. 188, 233, 246) dismisses Duggan's (2001) findings on the basis of what he believes are methodological problems. First, he found that the five largest national non-gun magazines (*National Geographic*, *Family Circle*, *Better Homes & Gardens*, *TV Guide*, and *Reader's Digest*) were better predictors of gun suicides and accidental gun deaths than *Guns & Ammo*. Second, of the three gun magazines with a larger circulation, only one had any statistically significant relationship with homicide, and the relationship was negative rather than positive.

While Duggan selected *Guns & Ammo* because it focused more on handguns than the three larger gun magazines, two magazines, *Handguns* (published by the publisher of *Guns & Ammo*) and *American Handgunner*, are devoted entirely to handguns. Both have county level

guns criminally. While the law might have these effects, it was also noted that the law could potentially increase victimization of this younger cohort if criminals perceive them as more vulnerable.

Marvell (2001, pp. 691, 696; 710-711) found that the law did not have its intended effect and resulted in little or no reduction in homicides among juveniles or among the overall population. He also found slight support for the hypotheses that the gun bans actually increased homicides by making juveniles appear more vulnerable.

Parker (2001, p. 716) criticized Marvell for not arriving at any policy prescriptions based on his findings. Parker (2001, pp. 715-717; 721-722) argued that if the bans have no effect they should be repealed. However, not only did the research findings indicate that the legislation was ineffectual, the laws may be positively correlated with the homicide of hundreds of juveniles a year. He insisted that this provides even stronger justification for its repeal. Parker (2001, pp. 715-717; 721-722), referred to the juvenile gun bans as “public policy disaster” which he claimed are “welfare reducing” because they consume public resources for no benefit, impede free choice, impose punishment without justification, and creates costs for police, prosecutors, jails, and prisons. Further juveniles may garner a lifetime label from what may be a harmless or even beneficial act.

While one may argue with Parker’s (2001, pp. 710-711) conclusions, he does raise some potentially useful concerns. For instance, he points out that when academics fail to draw relevant policy recommendations from their research on controversial subjects they are essentially abdicating their responsibilities by allowing lobbyists, journalists, and other forces to occupy their role. On the other hand, it is not clear that allowing youths younger than 18 year old to carry handguns makes for sound public policy, especially when we have seen that

juveniles were significant contributors to the spike in the homicide rate during the early 1990's (Blumstein, 1995; Blumstein & Rosenfield, 1998; Cook, et al., 1995, p. 61).

Benson and Mast (2001, pp. 725-728; 731, 741) expanded the original 1977-1992 data set used by Lott & Mustard (1997) by adding county level data on the number of security and detective services and the extent of employment within these industries. They examined two hypotheses. First, they wanted to determine if private security deters crime. Second, they wanted to determine whether the original Lott and Mustard (1997) findings that non-discretionary concealed carry legislation reduced crime were biased by their failure to control for private security. They reasoned that non-discretionary concealed carry legislation might have been more likely to be enacted in states with a "tradition of private retribution" and a distrust or lack of confidence in law enforcement. These states may also be more extensive use of private security measures. Therefore, private security rather than the non-discretionary concealed carry laws could provide a better explanation of any reductions in crime. The results of their regressions indicated that only rape had a consistent statistically significant relationship with private security measures. They found no evidence that Lott and Mustard's (1997) initial study was biased by a failure to control for private security measures.

In conclusion, a review of the literature reveals a consistent pattern. Often, one need look no further than the name of the author before knowing in advance what the relevant research findings and policy recommendations will be. Some authors almost always find that guns serve more harm than good and that gun ownership should be discouraged to the greatest extent possible. Conversely, other researchers consistently find that gun ownership provides a positive social benefit and should be encouraged among law-abiding citizens.

It would appear that at least in this field researchers would be well served by remembering two "laws" suggested by James Q. Wilson (1973, p. 133) nearly thirty years ago.

First Law: All policy interventions in social problems produce the intended effect-*if* the research is carried out by those implementing the policy or their friends.

Second Law: No policy intervention in social problems produces the intended effect-*if* the research is carried out by independent third parties, especially those skeptical of the policy

Wilson (1973, p. 133) also noted that although research is not often fabricated, differing standards of evidence and method are used. He explained that:

“Studies that conform to the First Law will accept an agency’s own data about what it is doing and with what effect; adopt a time frame (long or short) that maximizes the probability of observing the desired effect; and minimize the search for other variables that might account for the effect observed. Studies that confirm to the Second Law will gather data independently of the agency; adopt a short time frame that either minimizes the chances for the desired effect to appear or, if it does appear, permits one to argue that the results are “temporary” and probably due to the operation of the “Hawthorne Effect; and maximize the search for other variables that might explain the effects observed.”

Knowledge of these “laws” help researchers maintain a skeptical, cautious perspective when reviewing the findings of others.

CHAPTER SEVEN: METHODOLOGY

Purpose of the Study

This thesis will examine the resultant social benefits or ills of concealed carry legislation, as well as public policy ramifications using a data set graciously provided by Dr. John Lott Jr. Because the data set now includes information up to 2000, there is a longer observation period for both non-discretionary concealed carry and restrictive states. Some states, such as Kentucky, Louisiana, and South Carolina did not introduce concealed carry legislation until 1996 (Lott, 2000, pp. 87-89). Further, Ayres and Donohue (1999, p. 438) insist that:

“...those familiar with the statistical analysis of large databases that are designed to test the effects of public policy initiatives on complex social phenomena such as rates of crime will recognize that even well-designed and ostensibly unassailable studies can reach the wrong conclusions. Indeed, it is distressingly easy to do so, even with the best of intentions. Consequently, final resolution of such matters often involves a complex and protracted process of verification, extension, and replication.”

Ayres and Donohue (1999, pp. 464-465) also posited that the crack trade might have been more robust in states without the non-discretionary concealed carry laws. As a result, reductions in violent crime in non-discretionary concealed carry states may have been spuriously correlated with the introduction of non-discretionary concealed carry issue laws rather than correctly correlated with the prevalence of the crack trade in these states. They speculated that crack-related crime appears to have been declining rapidly in recent years. Consequently, adding additional years of data to the data set may allow states without non-discretionary concealed laws a better opportunity to perform in relationship to non-discretionary concealed carry states.

Although Lott (1999, pp. 3-6) insisted that he addressed these concerns with county level data on cocaine prices in the 1977-1992 data set, extension of the data set to include information for latter years should still help determine whether changes in violent crime rates following introduction of concealed carry legislation were the result of cyclic patterns, legal changes, or intervening variables and whether these changes remained consistent. According to Lott (2003, p. 1, 21) and Lott, Plassmann, and Whitley (2002) extension of the data set confirms Lott and Mustard's (1997) initial findings; the concealed carry legislation is associated with a reduction in murder rates, but as has been indicated not everyone agrees with this conclusion. In fact, the National Academy of Sciences has assembled a panel of scholars to sift through the growing body of contradictory findings (Ayres & Donohue, 2003a, p. 1197).

Routine Activity and Deterrence Theory

Cohen and Felson's (1979, pp. 588-589) routine activity theory holds that the convergence (in time and space) of suitable targets and likely offenders in the absence of capable guardians facilitates criminal predation. Victimization may be avoided when even one of these three elements is missing. However, this approach postulates that when capable guardians are absent, offense rates may rise considerably even when the structural factors that motivate criminal behavior are constant and there is no increase in the number of suitable targets (Cohen & Felson, 1979, pp. 589-590).

Further, the authors note that, "While police action is analyzed widely, guardianship by ordinary citizens of one another and of property as they go about routine activities may be one of the most neglected elements in sociological research on crime..." (Cohen & Felson, 1979, p. 590). During their routine activities, people may have access to instruments that can be employed as weapons for criminal purposes or for self-defense (Cohen & Felson, 1979, p. 591).

One way to reduce criminal victimization then might be through “target hardening.”

Allowing citizens who meet existing criteria for gun ownership to legally carry concealed handguns might be seen as one way to increase the presence of “capable guardians.” It might also eliminate the presence (or perceived presence) of suitable targets. This approach may prove to be less difficult than reducing the presence of likely offenders or their convergence with suitable targets in time and space. Many people may be unable to avoid dangerous times and places due to the location of their residence or occupational requirements.

While concealed carry laws may motivate some to venture into situations they would otherwise avoid, leading to greater victimization (Ayres & Donohue, 2003a, p. 1205; Wells, 2002, p. 152), the desirability of avoidance due to fear of victimization may be largely seen as a value judgment. As already noted, for some the practicality of this option is already constrained.

Concealed as opposed to open carry is important. Open carry would simply cause criminals to target other victims, leading to displacement. When handguns are carried concealed, it is uncertain who is and is not armed. Any deterrence effect could even carry over as a benefit to others, as perpetrators would be uncertain whether a given individual was carrying a gun (Ayres & Donohue, 1999, p. 439; Dezhbakhsh & Rubin, 1998, p. 468; Funk, 1995, p. 790; McDowall, et al., 1995b, p. 195; Green, 1987, p. 67; Kleck, 1988, p. 16; Lott & Mustard, 1997, p. 4; McDowall, et al., 1991, p. 541; Moody, 2001, pp. 799, 810; Southwick, 2000, pp. 355-357).

Further, if gun ownership can reduce the incidence of confrontational crimes and lead criminals to target unoccupied residences or businesses, decreased injury and death would result (Kates, 1991, p. 158; Southwick, 2000, p. 367). It might be argued that concealed carrying laws simply legitimize preexisting behavior. However, even if this were true, the “announcement

effect” of the legislation may deter crime as would be offenders became more cognizant of the potential consequences of encountering a capable guardian and targets begin to appear less suitable (Ayres & Donohue, 1999, p. 458; Ludwig, 1998, pp. 240-241, McDowall, et al., 1991, p. 541).

Conversely, if criminals believe victims are increasingly likely to carry a handgun, an arms race could ensue. Because of the greater costs of hesitation when one is uncertain who is and is not armed, criminals (and even ordinary citizens) may be quicker to discharge their guns in a given altercation. Further, if these laws lead more people to purchase guns, more guns are available for theft. Lawful carrying may also increase tolerance for illegal carrying as well. Therefore, concealed carry laws could potentially contribute to even greater bloodshed. (Ayres & Donohue, 1999, p. 439; 2003a, pp. 1204-1207; Lott & Mustard, 1997, p. 48; Ludwig, 1998, p. 240; McDonald, 1999, pp. 13, 17; McDowall, et al., 1995a, p. 224; McDowall, et al., 1995b, p. 196).

An analysis of the impacts of non-discretionary concealed carry legislation should reveal potential benefits associated with this legislation and whether it acts as a capable guardian and limits the suitability of potential targets. Alternatively, if the instrumentality and epidemiological perspectives are sound, increased incidence of gun carrying might lead to increased incidence of homicide. These laws may even be inconsequential in regards to rates of violent crime (Dezhbakhsh & Rubin, 1998, p. 468; Lott & Mustard, 1997, p. 1, 5; Ludwig, 1998, p. 240; McDowall et al., 1995b, p. 196).

Description of the Data

The data set consists of a pooled, cross-sectional, time series panel design and is an expansion of that used in the earlier studies previously cited and includes information for each of the 3,054 U.S. counties for the years 1977 to 2000 (though not all counties have complete

information for all variables for all years). During this period, 23 states (see Appendix J) adopted non-discretionary concealed carry legislation. Eight additional states (Alabama, Connecticut, Indiana, New Hampshire, North Dakota, South Dakota, Vermont, and Washington) enacted non-discretionary legislation several decades prior to the observation period.

Information concerning offense and arrest rates was derived from the FBI's Uniform Crime Report. When the rate of crime is zero, Lott added .10 to that number in order to remove the zero so that the natural log can be computed. This practice was also followed for this paper when computing the natural log of the population density per square mile and arrest rate for violent crime. Demographic statistics for age, sex, and racial composition of each county were obtained from the U.S. Bureau of the Census. Data on income, unemployment and poverty are based on information supplied by the Regional Economic Information System (REIS) (Lott, 2000, pp. 252-255).

Sample

Of the 3,054 counties, only counties with populations of 100,000 or greater are included in the initial regressions. Lott and Mustard (1997, pp. 8, 31, 39) and Lott (2000, pp. 29-29; 62, 94) learned through conversations with law enforcement agencies that the most populous counties were least inclined to issue permits whenever a preexisting discretionary system of permit issuance existed. Larger urban counties were much more restrictive than rural counties with lower populations, which frequently issued permits freely. Thus, if non-discretionary concealed carry permits have any effect in states that switch from discretionary to non-discretionary legislation, it would be greatest in larger counties, where the increase in permit issuance would be largest. Black and Nagin (1998) also limited their analysis to only counties with 100,000 population or larger.

Eliminating counties with populations less than 100,000 leaves a total of 531 counties in the sample. Of these counties, 53 are in the 8 states adopted non-discretionary concealed carry legislation prior to 1977 (Alabama, Connecticut, Indiana, New Hampshire, North Dakota, South Dakota, Vermont, and Washington). The remaining counties are divided between the 240 counties in the 23 states that adopted non-discretionary legislation between 1977 and 2000 and the 238 counties in states without these laws (see Appendix J). The total number of observations is 10,997.

Measurement of the Variables

Dependent Variables. The four dependent variables are the natural logs of the rate of murder, aggravated assault, robbery, and rape. These four types of violent crime were selected because they by definition require the convergence in time and space of a likely offender and suitable target. Whether concealed carry legislation is beneficial in preventing victimization or leads to destructive outcomes should be evidenced most clearly through analysis of these types of crimes (as opposed to property crimes). Natural Logs were chosen based on previous work by Lott (2000), and because standard deviations for murder and robbery were much greater than the mean. Further, scatter plots indicated that using the natural log produced a better linear fit than the simple rate. Table 1 provides descriptive statistics for all variables. Both the transformed and untransformed values are reported for purposes of comparison.

Using all four crimes is necessary for two reasons. First, epidemiologists and instrumentalists suggest that these laws might increase the incidence of homicide because guns may be present in times and places where they would have otherwise been absent. However, homicide is not the only important crime, because pro-gun advocates argue that these laws allow citizens to protect themselves from predation and deter criminals. If the pro-gun hypothesis is

correct, homicide, aggravated assault, rape, and robbery should decline more sharply in non-discretionary concealed carry states.

Independent Variable. The primary focus of this analysis is the relationship between non-discretionary concealed carry legislation and violent crime rates. A nominal dummy variable was equal to one in all years in which non-discretionary carry legislation was in force. For years prior to the law being in force, the dummy variable was equal to zero. During their routine activities, people may have access to instruments that can be employed as weapons for criminal purposes or for self-defense (Cohen & Felson, 1979, p. 591). The dummy variable attempts to capture this reality.

It should be noted that there is disagreement among scholars regarding the dates of the law in some states, and even the correct status of some states. Legislation is sometimes unclear; adoption does not always correspond to enforcement, and modifications of the law in different years leads to inconsistent classification. Moreover, at times, the laws read “shall,” but leave room for discretion, as applicants must be of “good moral character” further exasperating classification according to a non-discretionary or discretionary coding scheme (Ayres & Donohue, 2003a, pp. 1298-1299; 2003b, p. 1376; Lott, 2000, p. 132; Plassmann & Whitley, 2003, p. 1318). The coding convention used here will correspond to that used by Lott (2003).

Control Variables. The unemployment rate and poverty rate for each county are used as control variables. Cohen and Felson (1979, p. 596) noted that unemployed persons experienced an increased risk of victimization and posited that this might be attributable to living in close proximity to substantial concentrations of likely offenders. Moreover, because the unemployed may be less capable of avoiding certain types of victimization, they may be viewed as more suitable targets. Thus, the unemployment rate may affect violent victimization rate through both

the prevalence of targets and offenders. The same should hold true for those living below the poverty level.

For essentially the same reasons, the percent of the population for each county that is Black is also a control variable. Fox and Zawitz (1999, p. 2) reported that Blacks perpetrated murders eight times more often than Whites and were murdered seven times more often. In 2001, 50.3% of homicide offenders were Black (Federal Bureau of Investigation, 2002, p. 27). Further, between 1993 and 1997, nearly one-half of the victims of fatal and nonfatal gun attacks were Black males (Zawitz & Strom, 2000, p. 1).

Harlow (2001, p. 4) reported that Blacks were more likely than Whites to have possessed a gun during the offense for which they are presently incarcerated. Schnebly (2002, pp. 382-384) explains that those living in a high crime area are often victims by default. Lott (2000, pp. 68-69) also noted that Blacks were more likely to live in high crime areas or to have been the victims of gun crime. Therefore they are both more likely to benefit from these laws or be negatively impacted. A high concentration of Blacks would therefore correlate with a high concentration of likely offenders and suitable targets.

The natural log of the population density in square miles for each county is a control variable. The standard deviation of the population density in square miles was larger than the mean (see Table 1), for this reason the natural log was used instead. Presumably, a higher population density would result in more frequent convergence of likely targets and suitable offenders in time and space.

The percentage of the population 10-19 and 20-29 are control variable. Cohen and Felson (1979, p. 596) postulated that adolescents and young adults were more likely to be involved in peer group activities outside the home and would face a greater risk of victimization. Rather than reinforcing the concept of a career criminal, research consistently

reveals that the typical offender tends to “age out” of crime (Gottfredson & Hirschi, 2000; Harrison & Gfroerer, 2000, p. 97).

Harlow (2001, p. 4) reported that 35.5% of state inmates who carried a firearm during their offense were 20 years old or younger. The next highest rate of possession was between 21 to 24 years old (26.8%). The majority of federal inmates who carried a gun during their offense were also under 20 (23%), with the next highest percentage being 21-24.

Zawitz and Strom (2000, p. 3) confirmed that the majority of homicide offenders who used a gun between 1993 and 1997 were younger than 25 years old (60%). Moreover, the majority of both murder victims and offenders in 2000 were between 20 and 24 with the next largest group being 24 to 29 (Federal Bureau of Investigation, 2002, p. 17).

The natural log of the arrest rate for violent crime is a control variable. Like the population density variable, the arrest rate for violent crime had a much larger standard deviation than mean (see Table 1) making the natural log preferable. Presumably, those counties with higher arrest rates have more capable guardians (either in number or ability).

The percent of the population male is included as a control variable for likely offenders. It has been found that men are responsible for over 90% of violent crime (Ayres & Donohue, 2003a, p. 1236). Because men are also more likely to be the victims of most violent crimes with the exception of rape, this variable also allows one to control for the presence of suitable targets.

Finally, for aggregated analysis, a regional dummy variable interacted with the year is used to control for region and year fixed effects. For disaggregated analysis, a similar state dummy variable is used. Some may contend that non-discretionary concealed carry laws were enacted as crime rates were falling (or rising) and that any relationship is purely a result of chance. These variables help determine whether the concealed carry legislation has an effect after state and regional crime trends are controlled for.

The aforementioned variables are similar to those previously used by Lott (2000), Black and Nagin (1998), and Ayres and Donohue (2003), and others. However, this model is considerably less complex and contains fewer explanatory variables than the models these authors employed. The focus of the study is to determine whether the nondiscretionary concealed carry legislation has a effect on crime after controlling for the effects of these theoretically relevant variables.

Table 1: Descriptive Statistics for Dependent, Independent, and Control Variables^a.

<i>Variables</i>	<i>Mean(SD)</i>	<i>Median</i>	<i>N</i>
<i>Dependent</i>			
Nat Log Rate Murder	1.38 (1.17)	1.54	10758
<i>Murder Rate^b</i>	6.69 (7.08)	4.70	10758
Nat Log Rate Robbery	4.52 (1.11)	4.60	10753
<i>Robbery Rate^b</i>	158.36 (194.31)	100.41	10753
Nat Log Rate Agg Asslt	5.47 (.829)	5.54	10685
<i>Agg Asslt Rate^b</i>	319.00 (237.07)	256.84	10685
Nat Log Rate Rape	3.33 (.888)	3.48	10612
<i>Rape Rate^b</i>	36.20 (22.02)	32.47	10612
<i>Independent/Control</i>			
Poverty Rate	13.06 (3.46)	12.70	10997
Unemployment Rate	6.22 (2.01)	5.9	10997
Percent Pop Male	48.78 (1.243)	48.69	9955
Percent Pop Black	.091 (.100)	.058	10996
Percent Pop 10-19	13.15 (5.687)	14.67	10996
Percent Pop 20-29	14.53 (6.697)	16.04	10996
Nat Log Pop Density	5.98 (1.215)	5.81	10993
<i>Pop Density(in miles)^b</i>	1105.22 (3576.53)	336.51	10993
Nat. Log Arrst Rt Vlt Crm	3.63 (.787)	3.37	10347
<i>Arrt Rt Vlt Crm^b</i>	52.42 (256.64)	40.86	10347

a. Dummy variables for state and regional trend and nondiscretionary legislation not shown

b. Untransformed values shown for purposes of comparison

Hypotheses

The null hypothesis is that there is no correlation between the presence of non-discretionary concealed carry legislation and the natural log of the rate of murder, aggravated assault, and robbery. The research hypothesis is that there is a relationship between the presence of the dummy variable (indicating the existence of concealed carry legislation) and the

natural log of the rate of murder, aggravated assault, and robbery. Based on the conflicting studies already cited, no specific direction is hypothesized.

Statistical Approach

The statistical approach consists of both aggregated and disaggregated multiple regression analysis using weighted (for population) least squares. Using the previously cited variables, this thesis attempts to determine whether non-discretionary concealed carry legislation is correlated with reductions, increases, or no statistically significant changes in the rates of homicide, rape, aggravated assault, and robbery.

CHAPTER EIGHT: FINDINGS

As already indicated, the variable of interest is the nondiscretionary concealed carry dummy variable. However, prior to a comparison of the effects of the law in different states it is beneficial for the reader to understand the relative explanatory power of various variables in the model as well as the strength of the correlation between crime rates and the nondiscretionary concealed carry dummy variable. For this reason, several aggregated analysis will be presented prior to a disaggregated analysis.

Aggregate Analysis

Homicide. Table 2 presents the results of aggregate regression for murder. Though results are typically statistically significant, this is to be expected based on the large sample size. Pearson's Partial Correlation Coefficient (r) for the model was moderately strong at .749. The multiple coefficient of determination (R^2) was .561 and adjusted R^2 was .560, indicating that the model could account for approximately 56% of the variation in murder.

Table 2: Dependent Variable Natural Log Rate of Murder (N=9,413)

<i>Variables</i>	B	(SE)	Beta	t
% Population Black	4.999	.097	.503	51.306**
% Population Male	-.100	.009	-.116	-11.781**
% pop 10-19	.007	.003	.024	2.105*
% pop 20-29	.017	.003	.076	6.546**
Nat Log Arrst Rt Viol Crime	-.167	.011	-.105	-14.708**
Poverty Rate	.044	.003	.136	15.248**
Unemployment Rate	-.001	.005	-.003	-.311
Nat Log Population Density	.124	.007	.163	16.592**
Concealed Carry Dummy	-.061	.020	-.022	-3.007**
R	.749			
R ²	.561			
Adj R ²	.560			
F	922.371**			

*P<.05 **P<.005

The Analysis of Variance F-test was 92.371, which was significant at .001. Therefore, the null hypothesis that the population value for R^2 is zero can be rejected. The null hypothesis

that there is no linear relationship between the dependent variable and the independent and control variables in the model can also be rejected.

The partial slope coefficients (or partial regression coefficient) indicate the change in the mean of the dependent variable resulting from a one-unit change in the independent variable when all remaining independent variables are held constant (Bachman & Paternoster, 1997, p. 491; Norusis, 2000, pp. 462-463). The partial slope coefficient of the nondiscretionary concealed carry dummy variable was negative, indicating that the presence of this legislation has a negative linear relationship with murder. Lott (2000, p. 248) notes that one of the advantages of using a natural log transformation is that the partial regression coefficient for the dummy variable can be interpreted as the percent change in the rate of homicide, in this case a decline of 6%.

The partial slope coefficient was also negative for the natural log of the arrest rate for violent crime. Fox (1991, p. 61) notes that when both the independent and dependent variable are expressed as natural logs the partial slope coefficient can be interpreted as the approximate percentage change in the independent variable due to a 1% change in the independent variable, in this case, over 16%.

The partial slope coefficients for the percent of the population 10-19 and 20-29, the percent of the population black, the natural log of the population density, and the poverty rate were all positive as was expected. T-tests were significant at the .05 level for each of the variables. Surprisingly, both the percent of the population male and the unemployment rate had negative correlations with homicide. While this was not statistically significant with the unemployment rate, it was with the percent of the population male.

Because the value of the partial slope coefficient is determined in part by the unit of measure for a given variable, it may be difficult to determine the relative importance of different

variables in the model. Beta weights eliminate differences in the partial slope coefficients that are a function of differences in measurement by using a standard score. Larger Beta coefficients indicate a stronger impact on the dependent variable (Bachman & Paternoster, 1997, pp. 500-501; 504; Norusis, 2000, p. 468). The percent of the population black exhibited the strongest Beta Coefficient at .503. The remaining variables had weak or negligible Beta Coefficients which are provided in Table 2.

Although multicollinearity is a potential issue with least squares regressions, tolerance was always greater than .349. Norusis (2000, p. 468) suggests that a tolerance of .1 or less indicates a problem. Further, the variance inflation factor (VIF) was always smaller than 2.864. Some scholars have recommended that a VIF of greater than 4 indicates multicollinearity (Judge, Hill, Griffiths, Lutkepohl, & Lee, 1988; He, Liqun, Wells, & Maguire, 2003, p. 46). Additionally, the maximum value for Cook's distance was .143. Norusis (2000, p. 498) indicates that a Cook's distance of greater than 1 deserve examination.

The normal Q-Q Plot of studentized deleted residuals did not adhere well to the regression line for low and high values. Further, the Kolmogorov-Smirnov test for normality was .070 (significant at the .001 level). The stem and leaf plots of the studentized deleted residuals indicated 408 extreme negative outliers and 131 extreme positive outliers. Analysis of the largest negative outliers revealed that this was primarily due to the absence of recorded murders for some counties in given years. There were 285 negative outliers as a result of counties having no recorded murders and an additional 40 were attributable to a county having only 1 or 2 murders.

However, this was not always the case. One negative outlier appeared suspicious. An Illinois County in 1984 with a population of over 5 million had only 66 murders that year. During no time in the following 13 years did the number of murders drop below 727. Due to

missing data in the preceding years, it was difficult to determine if this was a coding error or an actual increase of over eleven fold. However, regressions with this case removed arrived at identical conclusions.

A single Texas county had four of the five largest positive outliers. This county experienced a jump from 553 murders in 1978 to 739 the following year. The county dropped by two murders to 737 in 1980 and then increased to 778 and then 801 murders in 1980 and 1981 respectively. An even more violent California County was also one of the largest positive outliers. In 1980, this county had 1,732 murders. This was an increase of nearly 300 murders from the preceding year. In 1981 the number of murders dropped by 168. However, not until 1996 did the county experience fewer than 1300 murders in a year and in some years there were over 1900 murders. While these and similar counties are outliers, it would seem capricious to remove them simply to obtain a more normal distribution or a better fitting regression line.

Results for the regressions using rape, robbery, and aggravated assault as the independent variable are reported in Tables 3-5. These regression results are primarily intended to set the stage for disaggregated analysis, which better addresses the issue of any crime reducing benefit associated with this legislation. Without belaboring the point, the reader should be aware extreme outliers and normality continued to be a problem with these regressions for essentially the same reasons as cited above. Simply put, violent crime does not appear to be a normally distributed variable.

Aggravated Assault. As with the murder regression, the percent of the population black continued to have the strongest Beta Coefficient for aggravated assault. The nondiscretionary concealed carry legislation remained negatively correlated with the dependent variable and although this was statistically significant, the correlation was not robust. Curiously, the percent of the population male and the unemployment rate continued to have negative relationships with

This can undermine family stability and sources of informal control through divorce and high rates of illegitimacy. These factors in turn lead to higher crime rates. Admittedly, the percent of population 10-19 was not an ideal age range for potential youthful offenders. A better measure would have been the percent of the population 14-19 or 15-19. Unfortunately, this data was not available. However, the focus of this thesis is on the effect of the nondiscretionary concealed carry legislation, which continued to exhibit a negligible negative correlation with robbery, however this relationship was not significant despite the large sample size. Indeed, the Beta Coefficient was a negligible -.013, the weakest of all the variables.

Table 4: Dependent Variable Natural Log Rate of Robbery (N=9,413)

<i>Variables</i>	B	(SE)	Beta	t
% Population Black	4.393	.093	.427	47.383**
% Population Male	-.101	.008	-.112	-12.434**
% Population 10-19	-.028	.003	-.101	-9.501**
% Population 20-29	.031	.002	.135	12.698**
Natural Log Arrest Rate Violent Crime	-.269	.011	-.164	-24.878**
Poverty Rate	.018	.003	.055	6.759**
Unemployment Rate	.013	.005	.024	3.092**
Natural Log Population Density	.278	.007	.354	39.070**
Concealed Carry Dummy	-.035	.019	-.013	-1.849
R	.793			
R ²	.628			
Adj R ²	.628			
F	1222.329**			

*P<. 05 **P<. 005

Rape. Table 5 contains the results of the rape regression. The model was not as strong a predictor of rape as for the other crimes and could explain only about 25% of rapes. The poverty rate and unemployment rate were no longer statistically significant. The two strongest predictors were the percent of the population 20-29 followed by the percent of the population black, both of which had statistically significant positive correlations. The nondiscretionary concealed carry legislation was now *positively* correlated with rape and the relationship was

statistically significant. However, this relationship was negligible based on the Beta Coefficient of .055.

Table 5: Dependent Variable Natural Log Rate of Rape (N= 9,403)

<i>Variables</i>	B	(SE)	Beta	t
% Population Black	2.003	.112	.228	17.830**
% Population Male	-.151	.010	-.197	-15.325**
% Population 10-19	-.042	.004	-.177	-11.756**
% Population 20-29	.060	.003	.305	20.143**
Natural Log Arrest Rate Violent Crime	-.161	.013	-.115	-12.257**
Poverty Rate	.001	.003	.004	.735
Unemployment Rate	.007	.005	.015	1.358
Natural Log Population Density	-.072	.009	-.108	-8.411**
Concealed Carry Dummy	.133	.023	.055	5.722**
R	.500			
R ²	.250			
Adj R ²	.249			
F	241.376**			

*P< .05 **P< .005

This was the first indication that the relationship between the nondiscretionary concealed carry legislation and crime might not always be beneficial. Results of regressions for each of the states provided further evidence that the proposed benefits of the legislation are questionable. Before examining these regressions, the reader should recall that the Beta Coefficients for the nondiscretionary concealed carry dummy variable have been weak or negligible even when statistically significant.

Disaggregated Analysis

Following these initial regressions, further analysis was conducted using a disaggregated approach. Only counties in states with a change in the law during the observation period are included. Disaggregated analysis is necessary for two reasons. First, Ayres and Donohue (2003a, pp. 1241-1245) argue that aggregated analysis is misleading because non-discretionary concealed carry laws were enacted at various times during the observation period, ranging from

1985 to 1996. A limited number of early and late adopting states can disproportionately tilt the regression line. For example, in an aggregated analysis, Maine would have a disparate influence in the post-passage period as it was an early adopting state, while the later adopting state of Texas would have a disparate influence in the pre-passage period.

More importantly, Ayres and Donohue (2003a; 2003b) insist that an aggregated analysis masks the effects of the law within each state. The law may have a beneficial effect for some states and a harmful effect for others. An aggregate analysis would fail to capture the unique effects for different states (especially when population weights are used) and confound nuanced policy decisions.

Restricting the sample to counties with a population over 100,000, and including only counties in states with a change in the law during the observation period leaves a total of 240 counties in the sample. The total number of observations is 4,698. Table 6 reports the partial slope coefficients for the non-discretionary concealed carry legislation for each of the four crime types. This table is a modified version of Ayres and Donohue's (2003a) Table 12, Black and Nagin's (1999, p. 212) Table 1, and Lott's (2000, p. 81) Table 4.9. The results are for regressions using only counties with a population of 100,000 or greater.

The relationship between the non-discretionary concealed carry legislation and crime rates was inconsistent and almost perfectly divided between beneficial and detrimental impacts. There were a total of 44 instances where there was a negative relationship between the law and crime rates (18 were statistically significant). There were also 44 instances where there was a positive relationship between the law and crime rates (16 were statistically significant).

Looking only at statistically significant findings, the law was equally likely to be positively or negatively correlated with three of the four crime types (murder, rape, and robbery), but seemed more likely to be correlated with a reduction in aggravated assault.

**Table 6: Disaggregated Jurisdiction-Specific Impact of Non-Discretionary Concealed Carry Legislation
(Counties of 100,000 Population or Greater)**

1977-2000	Murder	Rape	Aggravated Assault	Robbery
Maine (1985)	.157 (.421)	.173 (.109)	-.059 (.106)	.069 (.136)
Florida (1987)	-.336** (.107)	-.080 (.070)	.176* (.070)	.022 (.105)
Virginia (1988)	-.035** (.012)	.315** (.097)	.335** (.084)	.271* (.100)
Georgia (1989)	.609** (.120)	.361* (.143)	.588** (.149)	.516** (.152)
Pennsylvania (1989)	.174 (.098)	.139* (.059)	.114* (.058)	.460** (.080)
West Virginia (1989)	.394 (.454)	-.071 (.159)	.563** (.160)	.146 (.182)
Idaho (1990)	.881 (.681)	.265 (.137)	.038 (.147)	.358 (.226)
Mississippi (1990)	.525* (.227)	-.057 (.194)	.099 (.164)	.251 (.177)
Oregon (1990)	-.036 (.187)	.164 (.086)	.126 (.120)	-.070 (.092)
Montana (1991)	-.543 (.931)	1.531 (1.178)	.440 (1.642)	1.039 (1.519)
Alaska (1994)	.662 (.497)	.440 (.372)	.246 (.320)	.344 (.566)
Arizona (1995)	-.022 (.156)	-.212 (.146)	-.213* (.091)	.229** (.066)
Tennessee (1994)	-.148 (.139)	-.052 (.089)	-.102 (.115)	.018 (.088)
Wyoming (1994)	-----	-----	-----	-----
Arkansas (1995)	-.313 (.308)	.035 (.122)	-.420* (.150)	-.189 (.152)
Nevada (1995)	-.024 (.121)	-.240* (.116)	-.429* (.149)	-.205* (.080)
North Carolina (1995)	.017** (.006)	-.204** (.069)	-.334** (.074)	-.294** (.060)
Oklahoma (1995)	-.301* (.149)	-.192* (.075)	-.378** (.104)	-.247* (.094)
Texas (1995)	-.513** (.076)	-.145* (.059)	-.268** (.070)	-.295** (.060)
Utah (1995)	-.282 (.296)	.148 (.154)	-.282* (.102)	-.204 (.147)
Kentucky (1996)	.329 (.194)	-.024 (.118)	-.099 (.180)	.055 (.114)
Louisiana (1996)	-.234 (.138)	.001 (.100)	-.192 (.122)	-.258 (.134)
South Carolina (1996)	-.096 (.100)	-.086 (.059)	-.094 (.082)	-.052 (.096)
<u>Summary</u>				
Negative & Significant	3	4	7	Totals 4
Negative & Not Significant	9	7	5	5
Positive & Significant	3	4	5	4
Positive & Not Significant	7	7	5	9
				18
				26
				16
				28

* P<.05 **P<.005

Some cautions are warranted, as limiting the sample to only counties with a population of more than 100,000 created problems with the data. First, the small sample size in states with few large counties inflated standard errors, made it difficult to find statistical significance, and led to extreme multicollinearity. Montana and Alaska had only one county remaining in the sample and Wyoming was completely excluded. Although not statistically significant, it would appear that the non-discretionary legislation raised the Montana rape rate 153%, which is nonsensical.

Additionally, although Lott (2000, pp. 29-29; 62, 94) and Lott and Mustard (1997, pp. 8, 31, 39) assert that the biggest changes in permit issuance occurred in larger counties and that small counties often freely issued permits under preexisting discretionary systems, Lott (2000, p. 143) criticizes Black and Nagin (1998) for limiting their analysis of the 1977-1992 data set to only counties with populations of 100,000 or more as this practice eliminated 85% of all counties in the country. As a result, regressions were performed using the entire sample and the results are presented in Table 7.

Although using the entire sample alleviated problems with multicollinearity, the findings are still inconsistent not only across, but within states. For example, the Florida homicide rate would appear to have declined over 21% as a result of the law while the aggravated assault rate increased by an equal amount and both results are statistically significant. Again, looking only at statistically significant findings, the legislation was twice as likely to be positively correlated with increases in homicide and rape. The law was as likely to be positively as negatively correlated with aggravated assault, and only robbery revealed more negative than positive correlations.

Table 7: Disaggregated Jurisdiction-Specific Impact of Non-Discretionary Concealed Carry Legislation Based on Full Sample

1977-2000	Murder	Rape	Aggravated Assault	Robbery
Maine (1985)	.065 (.318)	.110 (.196)	.137 (.093)	-.450* (.220)
Florida (1987)	-.211* (.101)	.065 (.079)	.211** (.053)	.151 (.091)
Virginia (1988)	-.046** (.010)	.145 (.081)	.191** (.047)	.136 (.084)
Georgia (1989)	.178 (.104)	-.020 (.098)	.293** (.065)	.245** (.088)
Pennsylvania (1989)	.157 (.095)	.123* (.054)	.144** (.043)	.458 (.076)
West Virginia (1989)	.172 (.190)	.110 (.182)	.343** (.101)	.238 (.159)
Idaho (1990)	.671** (.224)	.525** (.193)	.149 (.092)	.684** (.204)
Mississippi (1990)	.465* (.201)	-.101 (.202)	.281 (.155)	.357* (.177)
Oregon (1990)	-.288 (.155)	-.053 (.086)	.183* (.070)	-.033 (.096)
Montana (1991)	.282 (.293)	-.165 (.317)	.155 (.180)	-.166 (.287)
Alaska (1994)	-.088 (.153)	.074 (.150)	-.082 (.108)	.178 (.137)
Arizona (1995)	.069 (.150)	-.082 (.144)	-.135 (.070)	.107 (.136)
Tennessee (1994)	.148 (.125)	.123 (.124)	.275 (.093)	.303 (.101)
Wyoming (1994)	-.615 (.424)	-.287 (.316)	-.447** (.140)	.138 (.353)
Arkansas (1995)	-.084 (.153)	.074 (.150)	-.082 (.108)	.178 (.137)
Nevada (1995)	.363 (.207)	.346 (.211)	-.214* (.098)	.369* (.164)
North Carolina (1995)	-.297** (.082)	-.113 (.077)	-.219** (.046)	-.163 (.067)
Oklahoma (1995)	.056 (.163)	-.064 (.129)	-.161* (.066)	.067 (.129)
Texas (1995)	-.421** (.065)	-.185** (.063)	-.326** (.037)	-.225** (.055)
Utah (1995)	-.404* (.196)	-.297 (.164)	-.227* (.095)	-.240 (.186)
Kentucky (1996)	.435 (.230)	.009 (.195)	.059 (.105)	.751** (.193)
Louisiana (1996)	.143 (.192)	.087 (.183)	.013 (.019)	.206 (.170)
South Carolina (1996)	-.093 (.113)	-.156 (.077)	-.007 (.059)	-.042 (.078)
				Totals
Negative & Significant	5	1	6	2
Negative & Not Significant	5	9	4	5
Positive & Significant	2	2	6	5
Positive & Not Significant	11	11	7	11
				14
				23
				15
				40

*P<.05

**P<.005

The “more guns less crime” thesis is not supported. Lott and Mustard’s (1997, p. 65) assertion that, “...concealed handguns are the most cost-effective method of reducing crime thus far analyzed by economists, providing a higher return than increased law enforcement or incarceration, other private security devices, or social programs like early educational intervention” seems overstated to say the least. Instead, the findings of this thesis are more consistent with Black and Nagin’s (1998, p. 219) conclusion that “...inferences based on the Lott and Mustard models are inappropriate, and their results cannot be used responsibly to formulate public policy.”

Limitations and Recommendations for Further Research

Some authors have argued that a hybrid model is preferable to a simple dummy model (Ayres & Donohue, 2003a). However, software limitations confined this study to a simple dummy model, which despite its limitations revealed that the effects of the law cannot be promoted as universally beneficial.

That there are problems with Uniform Crime Report (UCR) data is well documented. National Crime Victimization Survey (NCVS) estimates indicate that in some years less than one-half of robberies, rapes, and assaults are ever reported to the police. Further, changes in crime rates may be largely a function of police screening and recording. Some have gone so far as to claim that UCR data is so unreliable to be of virtually no value for research (McCleary, Neinstedt, & Erven, 1999, p. 303; Messner & Rosenfeld, 2001, p. 17).

Still, as discussed in the section entitled *Defensive Gun Use and the NCVS*, the NCVS also has limitations and is not without its detractors. NCVS data may be more accurate, but the NCVS does not collect information concerning homicide, which was an important variable for this analysis. Reliance on UCR data may well be a significant limitation of this and similar

studies and a recommendation for further research might be to conduct similar analysis using NCVS data.

Ayres and Donohue (2003a, 1287; 2003b, 1375-1376) insist that crack markets contributed to increased crime rates in non-adopting states during the 1980s. When crack markets began to decline in the 1990s, crime rates fell more rapidly in non-adopting states than in those with the legislation. As a result, they insist that an inability to control for the effects of the crack markets introduces serious omitted variable bias. This criticism is consistent with the research of Blumstein (1995) and Blumstein and Rosenfeld (1998), whose findings concerning the relationship between crack markets and homicide rates is discussed in Chapter Four. It may also explain some of the extreme positive outliers for homicide in this data set.

Unfortunately, county level data on cocaine prices were only available in the 1977-1992 data set and were incomplete. Although, there are a potentially unlimited source of variables that could be included (e.g. per capita consumption of alcohol, the price of alcohol, the number of police per 100,000, etc...) an analysis that includes a proxy measure for crack availability would be a promising direction for future research.

Expansion of this data set in the years to come would provide an increased observation period especially for the late adopting states. Research could also expand on the work of Ayres and Donohue (2003a, pp. 1293-1296) and identify factors that might contribute to deleterious effects of non-discretionary concealed carry legislation in some states and beneficial effects in others. Research of this type could facilitate more informed policy making and serve as a valuable tool for deciding whether these laws are appropriate for particular states.

Another useful contribution would be to compile comprehensive information on permit holders. Presently, research indicates that permit holders are extraordinarily law abiding and rarely involved in violent crimes (Kates & Polsby, 2000; Lott, 2000). As mentioned in Chapter

Four, Kates and Polsby (2000, p. 196) could find only one homicide committed by a permit holder between 1990 and 1997. However, these findings were based on incomplete permit information.

As already noted, even if permit holders never commit a crime, non-discretionary concealed carry legislation could increase gun crime rates if it encouraged purchase of guns which were subsequently stolen by criminals, or if it led to increased gun carrying by criminals (Ayres & Donohue, 1999, p. 439; 2003a, pp. 1204-1207; Lott & Mustard, 1997, p. 48; Ludwig, 1998, p. 240; McDonald, 1999, pp. 13, 17; McDowall, et al., 1995a, p. 224; 1995b, p. 196). Still, others contend that concealed carry legislation may reduce thefts and accidents as the guns are protected from children and thieves (Barnett & Kates, 1996, p. 1239).

Survey information from permit holders could provide information on gun purchases, thefts, and the incidence of defensive gun use. Information concerning arrests which involve illegal carrying of concealed firearms should also be collected in order to determine if these laws led to increased gun carrying by criminals. A data set which contained all of this information could help unravel the peculiarities and nuances involved with the issue.

Another avenue for further research might be to expand on the research of Hood and Neeley (2000). These scholars determined that permit holders in Dallas were predominately white males who lived in areas with higher than average education and income and low rates of crime. If residents of high crime refrain from obtaining permits, any "announcement effect" may wane as criminals recognize that victims continue to be unarmed. It would be difficult to argue that permits obtained in low crime areas had a continuing impact in high crime areas.

CHAPTER NINE: POLICY RECOMMENDATIONS

This section will offer several policy recommendations based on the literature review and data analysis. Gun violence is a wicked social problem and any suggestion that the problem can be completely resolved is illusory. As already noted, the effectiveness of municipal or state bans is easily subverted by gun runners.

When Virginia was the chief point of origin for D.C. crime guns, Virginia passed a one gun a month law. Gun runners simply shifted their purchases to Georgia. This is often used as an argument for national legislation, but it also reveals that as long as there is a demand, it will be met. After all, if a handgun ban is not effective in Washington D.C., a landlocked area of less than 45,000 acres, how would the 12,000 miles of coastline and millions of square miles of interior of the U.S. be better policed by federal agents (Polsby, 1994, p. 63; 1995b, 219-220)? A supply side approach to controlling gun violence is a problematic proposition, and analogies with the war on drugs, prohibition, pornography, prostitution, and other vice, are obvious (Bruce-Biggs, 1976, p. 56; Koper & Reuter, 1996; Moore, 1983, p. 189; Polsby, 1994, pp. 58, 63; Wright, et al., 1983, p. 138; Wright, 1995, p. 67).

Even a total ban on the internal production, sale, and possession of all firearms would fail to resolve the issue, as roughly 200 to 250 million guns are in circulation. In the unlikely event that a substantial proportion of these guns were turned in or confiscated, an internal cottage industry and/or smuggling would be able to meet criminal demands. Zip guns were made from automobile antennas in the 1950s, and a shotgun can be crafted from readily available items such as a section of pipe, a small segment of wood, rubber bands, and a nail. Anyone with a little time, a lathe, and a saw can create a functional gun. Black powder can be produced by anyone with a chemistry set. For those who are not satisfied by these crude

weapons, functional replicas of AK-47s have been produced by Afghani tribesmen and Southeast and Southwest Asian villagers using simple tools, wood fires, and makeshift foundries. It is difficult to imagine that Americans equipped with much improved metal working gear would be unable to do the same. Even more startling is that if demand was intense enough and interdiction was successful enough, police officers could become targets solely for their weapons (Bruce-Biggs, 1976, p. 53; Polsby, 1994, p. 64; Wright, et al, 1983, p. 321).

Much like local legislation, a federal ban could also be defeated by illegal international gun trafficking, just as occurs with drugs now. Funk (1995, p.772) pointed out that between 1986 and 1989 up to 500,000 Chinese-manufactured AK-47s were illegally imported into the United States. The United Nations (1997, p. 7) emphasizes that a lack of enforcement in one country can have serious impacts on other nations.

The war on drugs has shown that federal efforts have not been able to significantly raise the price of street drugs (Koper & Reuter, 1996, pp. 119-120; Polsby, 1994, p. 63). While many scholars view the War on Drugs as an abysmal failure, this logic is seldom translated to an analysis of gun control. Contrasting illegal gun markets to illegal drug markets, Koper and Reuter (1996) reveal that enforcement of gun control would be substantially more difficult than combating drugs. First, the length of the distribution chain would be significantly reduced (Koper & Reuter, 1996, pp. 125, 133). Whereas many illegal drugs originate in other countries and enter in large quantities, guns are already present in significant numbers to sustain a black market for decades.

Transactions would be significantly less frequent, as a gun does not share the ephemeral qualities of drugs. A good quality gun properly maintained would last practically indefinitely. This along with the higher cost of guns would result in fewer transactions, thereby exasperating detection of illegal markets. Additionally, guns could often be easily obtained from relatives

and acquaintances. Markets where exchanges are made among acquaintances are more difficult to penetrate (Koper & Reuter, 1996, pp. 128, 131, 132, 138, 140).

Because guns are somewhat more difficult to conceal than drugs, vendors in the illegal gun market would likely not carry large quantities of product in open air markets. The retail gun market would more closely resemble the wholesale drug market. A lack of inventory at sites of exchange would also complicate enforcement efforts (Koper & Reuter, 1996, p. 137).

Another problem is that a ban would have greatest impact on law abiding citizens who presented no real harm to begin with. Criminals are more difficult to disarm. However, control measures which carefully target only criminal and irresponsible users do have a place in reducing levels of gun violence. The ability of gun laws to reduce crime can never be much more than marginal (Kates, et al., 1995, pp. 526 -528). Nevertheless, a few suggestions for managing and alleviating gun violence without infringing on legitimate gun owners will be offered in the following sections.

Recognition of a Right to Bear Arms

Ironically, formal recognition of the legitimate use of guns and a guarantee to preserve these uses (including self-defense) would probably take gun owners off the defensive, reduce resistance to gun control measures, and make reasonable efforts at controlling gun violence more palatable (Barnett & Kates, 1996, pp. 1185-1186; Jacobs, 2002, pp. 52, 223; Moore, 1983, p. 192).

After all, if gun owners knew that the "collective" versus "individual" rights argument had been settled in favor of an individual interpretation, and that future control measures would not attempt to infringe on these rights, there might be reduced resistance towards innocuous measures out of fear of the "slippery slope." Arguably, the Second Amendment guarantees an individual right, but this is a point of widespread contention and should be made more explicit.

Moore (1983, pp. 185-187) argues that the gun control debate has often abandoned pragmatic considerations in favor of empirical investigation of the effects of guns on crime. As a result, little more than political impasse has developed. He posits that "...gun owners worry—rightly, in my view—that the gun controllers would be willing to sacrifice their interests even if the crime control benefits were tiny." On the grounds of pragmatism and principle, he insists that making any headway will entail recognizing individual rights to protect themselves. This seems a reasonable conclusion.

Courts have repeatedly determined that police departments and governmental entities are under no obligation to guarantee an individual's safety (Funk, 1995, p. 801; Kates, 1991, p. 123-124, Stell, 2001, p. 31). It hardly seems ethical to deny citizens the right to protect themselves, while repudiating any responsibility for their safety. If police departments and governments cannot guarantee the safety of the public, then it seems only natural and indeed incumbent on individuals to provide means for their own protection (Kates, 1991, p. 125; Snyder, 1993, p. 43). As discussed in Chapter Two, this would in no way preclude reasonable controls aimed at controlling access by criminal and irresponsible users.

Non-discretionary Concealed Carry Permits

The question of non-discretionary concealed carry legislation is one best left to the individual states. Disaggregated analysis indicates that the effects of the law are inconsistent and blanket national legislation uninformed by local nuances would therefore be inappropriate. Further, even if the legislation has a mildly beneficial impact, community preferences may be such that widespread carrying of concealed handguns is regarded as undesirable and threatening (Jacobs, 2002, p. 224).

Gun control advocates often question why restrictive gun control legislation, such as that in New York, Chicago, or D. C. should be subverted by permissive legislation in other states.

At the same time, gun owners in rural Montana towns may resent their preferences being subordinated to interests in far away metropolitan areas. This is especially true when rural residents view guns as a convenient scapegoat for problems best attributed to failed social policies and incapable politicians (Jacobs, 2002, pp. 47-48). When one contemplates the issue of non-discretionary legislation through this same lens, it would be difficult to argue for a national non-discretionary law, which could infringe on the preferences of residents of some states.

Controlling the Secondary Market

As discussed in Chapter Three, the majority of criminals and juveniles obtain their guns through the secondary market which is currently unregulated. Between 80% and 93% of adult felons obtained their guns through a street purchase, theft, illegal source, friend, or family member. Juveniles may be even less likely to obtain firearms through the primary market than felons (Cook, et al., 1995, pp. 60-61; 68-70; Harlow, 2001, p. 1; Jacobs, 2002, pp. 101-102; Jacobs & Potter, 1995, p. 103; Snyder, 1993, p. 46; Wright, 1995, p. 65). Yet, as we have seen the secondary market is virtually unregulated. Some consider registration as a viable policy option to address this problem. The following sections will argue that registration, at least in the conventional sense, would make for poor policy. An alternative approach will be recommended, which provides nearly all of the benefits of registration without the negative externalities and opportunity costs.

Registration

Compliance. First, there is the issue of the large number of guns already in circulation. Registration of guns is an entirely different matter than registering cars. Car owners do not resist registration due to fear of confiscation (Jacobs, 2002, p. 151; Jacobs & Potter, 1999, p. 109). We have already examined the issue of the slippery slope and the experience of different

nations with a registration system. There is widespread belief among gun owners that registration is often a precursor to confiscation in the international arena (and sometimes at the state and city level). While this need not be the case, many gun owners perceive this as the desired end state. Bordeaux (1983, p. 351) noted that 73% of gun owning respondents indicated they would not turn in their guns if ordered to do so.

While registration and bans are entirely different matters, we can look to the experiences in several states for possible indicators of compliance. California implemented an "assault weapons" registration program in 1989. Owners of these guns were given until December 31, 1990 to comply. Despite an additional 90 day extension and a \$330,000 media campaign, from 78% to 89 % of "assault weapons" remained unregistered (Kleck & Kates, 2001, p. 143; Jacobs, 2002, pp. 150, 162; Jacobs & Potter, 1999, p. 106).

Jacobs (2002, pp.149-150; 152; 162-163) and Jacobs and Potter (1999, p. 106) predict massive resistance to registration due to fear of confiscation. In Boston, Cleveland, and Denver compliance with assault rifle bans was estimated at 1%. In New Jersey out of an estimated 100,000 to 300,000 assault rifles only 947 were registered, 888 rendered inoperable, and four turned in.

Difficulty of Enforcement. Unlike registering a dog or a car, which are easily observable, guns are easy to conceal and can lie undetected in a dresser drawer for years. Registration of an item frequently relegated to closets or bureau drawers is impractical, unenforceable, and invites massive resistance to the law. Further, guns can last over 100 years and there are already as many as 100 million unregistered handguns. A registration system can also be defeated through theft and straw purchases (Jacobs, 2002, p. 152; Jacobs & Potter, 1999, p. 109; Wright, et al., 1983, pp. 44; 318).

Packard (1968) developed several principles which help to determine whether a behavior should be criminalized. Among these is that the behavior to be criminalized must be broadly regarded as destructive and socially threatening and not widely accepted or condoned. As discussed earlier, between 38% and 50% of American households have at least one firearm. Many persons do not view the possession of an unregistered gun by a responsible owner as destructive or socially threatening.

Criminalization of the behavior should also be consistent with the goals of the sanction and should neither inhibit socially desirable behavior nor overburden the justice system (Packard, 1968). Requiring mandatory registration may lead to increased black market activity, massive resistance, contempt for the law, and make otherwise law abiding citizens criminals. As will be discussed below, a registration system may also present tremendous opportunity costs that drain resources from other programs. Finally, there should be no other practical substitute to criminalization. In the case of registration, there is a reasonable substitute.

Canada Revisited. Chapter Five examined the experiences of several nations with registration systems. A few additional observations concerning recent developments in Canada should also be noted. First, the total cost to taxpayers for the firearms registry in Canada was initially estimated at C\$2 million. By 2004-2005, the cost will have exceeded C\$1 billion although the exact amount cannot be determined as the government is unable to account for spending or to provide a final cost projection. Over C\$400 million was used to develop databases. To make matters worse, there is a good deal of resistance to the program. Roughly 900,000 to 1.6 million Canadians have failed to register their firearms and 5 provinces have decided not to prosecute gun owners who do not register their gun. (Eves government urges Ottawa to suspend gun registry, 2003; Hession, 2003; LeBlanc, 2003; Lindgren & Naumetz, 2003; McIntosh, 2003, p. A4; Panetta, 2003; The Americas: Gun law; violent Canada, p. 40).

Of course, there are opportunity costs for these expenses, and some note that C\$1 billion could have been better spent on healthcare, highway improvement, and education rather than a system that primarily impacts compliant citizens. Additionally, the database has crashed and deleted the names of some who did register, meaning that they are potentially in violation of the law (Eves government urges Ottawa to suspend gun registry, 2003; Panetta, 2003).

A registration system in the United States might avoid all of the problems which have plagued the Canadian system. However, gun ownership in the United States is much more widespread and the system would necessarily be much larger. Additionally, based on *Printz v United States*, a federal registration scheme would likely have to be overseen by a federal bureaucracy.

In the United States, the National Firearms Registration and Transfer Record contains only those firearms covered by the National Firearms Act (NFA) of 1934. Experience with this limited registry does not provide a solid basis for optimism concerning a more comprehensive system. According to BATF audits conducted by the Office of the Inspector General, more than 100,000 NFA firearms may be registered to deceased persons. Furthermore, some registration and transfer records have been lost or destroyed and the firearms belonging to these individuals are now vulnerable to confiscation and the owners subject to prosecution. It should also be recalled that the registry has not been burdened with private registrations of new automatic weapons as a result of the Firearms Owners' Protection Act of 1986, which prohibited manufacture and sales of these new firearms for use by private parties. Additionally, there are only 240,000 automatic firearms contained in the registry and approximately 120,000 of these are registered to private citizens (Jacobs, 2002, p. 145; Kleck, 1997, p. 108).

Negative externalities and Opportunity Costs. Besides the potential costs of the registration system and associated federal bureaucracy, potential criminalization of millions of

otherwise law abiding citizens, and massive resistance which would undermine respect for the law, Jacobs (2002, p. 164) observes that a registration system could also serve to spark increased altercations with fringe groups who have, "for years warned of a colossal and despotic federal government." He warns of more Waco and Ruby Ridge type confrontations. Again, it should be emphasized that when viewed together, these are rather severe costs for a system that offers little beyond what expansion of an already existing system can offer. There is an alternative that will accomplish most of the objectives of a registration system while avoiding the negative externalities and opportunity costs.

Alternative Proposal

Current law requires Federal Firearm Licensees (FFL) to retain sales records and provide this information to the BATF in the event that they retire or go out of business. Under the existing system, a trace request can follow the firearm from the manufacturer to the FFL dealer, to the first retail purchaser and can be used to identify black market FFLs. Expansion of this system to the secondary market would accomplish most of the objectives of registration without the negative externalities and opportunity costs (Cook & Leitzel, 1991, p. 112; Jacobs, 2002, pp.80, 148; Kleck, 1997, pp. 388-390; Kopel, 1992, pp. 143, 240).

Essentially, all transfers of firearms would be brokered via an FFL. When private parties wished to engage in a firearms transaction, both would appear before an FFL, who would conduct the background check and maintain records on the sale to the new owner, just as if he had sold a gun from his own stock. The FFL would be required to perform the service for a small fee of roughly \$30 or less. A background check would also be required for the purchase of ammunition. Rather than imposition of a severe sanction that is seldom enforced, a more realistic approach would be a fine and a short jail term for an initial conviction with increasing

sanctions for future convictions (Cook & Leitzel, 1991, p. 113; Kleck, 1997, pp. 388-390; Jacobs, 2002, p. 223).

It should be noted that this legislation would be most effective for firearms manufactured after the implementation date. That is, once the law was passed if a person purchased a new gun, they would recognize that a subsequent trace would lead back to them and they would be expected to account for the whereabouts of the gun. Those who already possess guns that are not traceable to them could avoid the requirement, just as they could avoid a registration requirement.

Weaknesses. Admittedly, this proposal may be circumvented in all the ways that a registration system can be circumvented. It can be avoided through straw purchases and thefts. Anyone with one of the firearms already in circulation could transfer them to others without bothering to acquire the services of an FFL. One could also sell a gun that was produced after the law went into effect and then report it stolen. If a gun manufactured after the implementation date of the law was used in a crime and traced to the original purchaser, he or she could falsely report that the services of a particular FFL had been used to make the transfer to an unknown party when in fact they had not (Jacobs, 2002, pp. 100; 134-136).

As indicated in the first portion of this chapter, there are few gun policies that cannot be circumvented including an outright ban. Lott (2003, p. 196) contends that even Sarah Brady may have violated the law by making a straw man purchase for her son. However, the proposal present here is a realistic policy option that offers several advantages over the existing system and registration that offset its limitations.

Advantages. First, the proposal offered here does not require repeal of provisions of the FOPA of 1986 (which prohibits establishment of a national system of gun registration) and does not easily facilitate a slippery slope. Repealing the FOPA of 1986 would serve to undermine

cooperative efforts and send a signal to gun owners that their rights were being eroded at the same time that greater cooperation is needed.

Second, the system is decentralized and takes the burden off the federal government. Records must be maintained by FFLs. The public recognizes no record keeping costs associated with this proposal and all costs are paid by the parties involved. FFLs are unlikely to oppose the legislation, because it brings more customers into their shops and creates potential sales of firearms related paraphernalia, accessories, and ammunition. Not to mention the small profit from performing the background check needed to complete the transaction (Kleck, 1997, p. 389).

Third, public funds which would have been devoted to a registration are available for other purposes. Opportunity costs are avoided and the money saved can be used to get at the real causes of violence in our society. In essence this proposal accomplishes the objectives of registration without the opportunity costs and negative externalities.

Integral Locks

Admittedly, the number of child fatalities in a given year is relatively low. In 1999, 12 children under age five and 76 children between ages five and fourteen were unintentional killed by firearms (National Safety Council, 2002, p. 127). Lott (2003, pp. 83-84) observes that in 1999, the number of children under age five who drowned in plastic five-gallon water buckets was larger than the number under age ten who were killed by gun accidents. Kates, et al. (1995, p. 570) notes that children under age 15 are 400% more apt to drown than to die in a gun accident. Hughes and Hunt (2000, p. 10) explain that the total number of deaths from gun accidents is less than that caused by medical error. Jacobs (2002, p. 4-5) also observes that as the population and the number of guns in private hands have increased, gun accidents have declined and guns are not a leading cause of accidental death in America.

However, the purpose of this recommendation is not solely to prevent accidents, thought this is an additional benefit. If youths are important contributors to rates of gun homicide as suggested in the literature review, and especially in the works of Blumstein (1995) and Blumstein and Rosenfeld (1998), one important measure might be to equip handguns with integral locks in order to preclude their unauthorized use by teens. A number of manufacturers including Smith and Wesson, Taurus, Springfield Armory, Heckler & Koch, and Glock now equip their handguns with built in locks which render the gun unusable without a specially designed key. These locks seem to add practically nothing to the cost of the gun. Therefore legislation that requires similar technology by other manufacturers would not seem unreasonable. Kellermann (1991, p. 35) refers to measures such as this as a primary prevention method.

This measure would also seem a viable deterrent to theft *if* the key is unique to a particular gun. Even if the gun could be rendered operational by a gunsmith, the fact that the owner did not have a key would alert the gunsmith to the possibility of theft and lead to notification of the police, a background check, and a check of NCIC or the state database to ascertain whether the gun had been reported as stolen. Further, even if nothing initially seemed afoul, subsequent reporting of the gun as stolen would lead to the culprit and if the background check indicated that the individual was a member of the proscribed classes the gun would be confiscated.

Gun locks should not be depended upon for fail proof safety. A number of external locks have been recalled, and some gun owners have experienced inadvertent discharges when they attempted to install an external trigger lock on a loaded gun (Jacobs, 2002, pp. 173-175). Based on these problems with external locks, this policy recommendation requires the use of integral locks.

Additional Recommendations

In addition to the currently proscribed classes, those who have been convicted of more than one incident of public intoxication or driving under the influence would be prohibited from purchasing or possessing a firearm for a period of five years (Kleck, 1997, p.392). It seems inconsistent that those with drug addiction problems are excluded from firearms possession, but those who have demonstrated that they are unwilling to exercise sound judgment with alcohol are unaffected by legislation, especially when one considers that accidents and homicides involving guns often involve alcohol use and that those who use guns irresponsibly often have a history of similar irresponsibility with alcohol (Barnett & Kates, 1996, p.1245; Christie, 1999, pp. 96, 99; Kates, et al.,1995, p. 587; Kopel, 2000, pp. 1223-1224; Kopel, 2001, p. 362; Lott, 2003, pp. 141-149).

Real Answer

When making decisions in response to social problems, one should attempt to determine if the problem is actually a problem or a symptom which actually conceals the underlying problem (Starling, 2002, p. 232). Gun violence in America is a problem whose roots go much deeper than the availability of guns.

High rates of gun violence in America are probably best explained by the unique structural and cultural aspects of our society. The United States has a cultural ethos that places an excessive emphasis on achieving monetary measures of success while deemphasizing the legitimate means for obtaining it. This “fetishism” of money when coupled with a reduced emphasis on the legitimate means for obtaining it instills a willingness to use the most technologically expedient means available. Structural impediments to equality create a situation where not everyone can excel through conventional channels. Additionally, institutions such as

the family, the polity, and schools are devalued relative to the economy and do not exert the controls necessary to restrain behavior (Messner & Rosenfeld, 2001).

These conditions are especially problematic when illegal transactions are involved and the formal means of conflict resolution are unavailable, as is the case in the drug market. Kates, et al. (1995, pp. 575-576) contend that the real causes of murder in the United States are competition in the drug trade, poverty, and a lack of access to legitimate channels for success.

According to Lott, a black gun ownership rate of 100% would be insufficient to explain the disparity in murder rates between blacks and whites (Lott, 2000, p. 39). Kleck and Kates (2001, p. 63) note that young black males in rural areas have a murder rate between 900 to 1,000 percent lower than those in the inner-city despite having a rate of firearms ownership that far exceeds their urban counterparts. These authors also attribute the actual causes of gun violence to poverty, inequality, desperation, and hopelessness. These views are supported by the finding that the percent of the population black was typically the strongest predictor of violent crime in the aggregated regression models.

Placing excessive emphasis on guns as a cause of gun violence or a means of reducing crime can divert attention from these more intractable issues and offer the illusion of simple fixes (Christie, 1999, pp. 96, 99; Polsby, 1994, p. 57). There are no simple solutions to gun violence and until the underlying issues are addressed, it is unlikely that true progress will be made.

In his critic of the war on crime, Polsby (1994, p. 69) anecdotally suggests that politicians and legislators could learn a lot from hunters and conservationists. Although wild animal populations will recover from predation and hunting, they do not recover from destruction of their habitat. A serious attempt to reduce the American murder rate would

concentrate on the ecological conditions that give rise to violence. Kleck and Kates (2001,

p. 84) use the analogy of yellow fever to illustrate the point:

After research disclosed that mosquitos were the vector for transmission of yellow fever, the disease was not controlled by sending men in white coats to the swamps to remove the mouth parts from all the insects they could find. The only sensible, efficient way to stop the biting was to attack the environment where the mosquitos bred. Guns are the mouth parts of the violence epidemic. The contemporary urban environment breeds violence no less than swamps breed mosquitos. Attempting to control the problem of violence by trying to disarm the perpetrators is as hopeless as trying to contain yellow fever through mandible control.

Until we address the underlying causes of gun violence through concrete meaningful strategies such as ending the war on drugs, strengthening the institutions of family, community, schools, and the polity relative to the economy, providing real opportunity for all citizens, creating a society where social, economic, and political justice prevails and instilling a sense of public service, we will be left with piecemeal efforts that at best mildly ameliorate gun violence.

Appendix A: Assault Weapons Features

Exhibit 2. Features test of the assault weapons ban

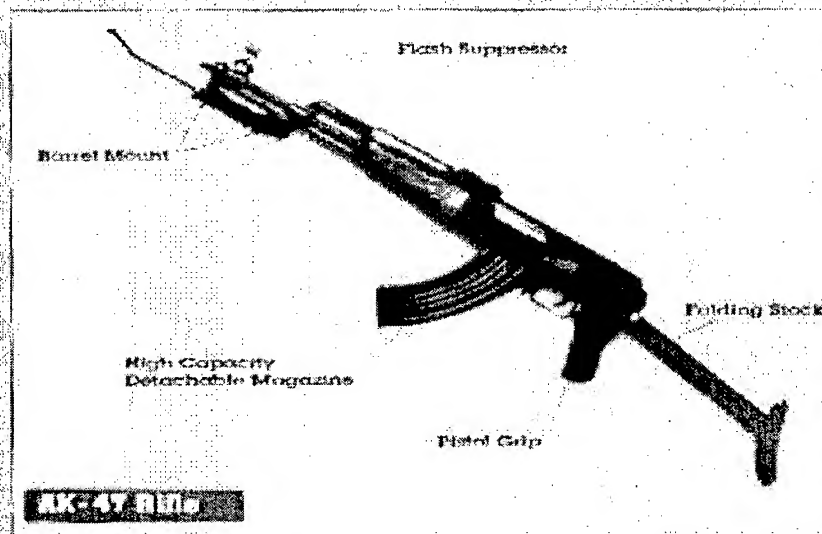


Exhibit provided courtesy of Randour Control, Inc.

1. Semiautomatic rifle having the ability to accept a detachable ammunition magazine and at least two of the following traits:
 - A folding or telescoping stock.
 - A pistol grip that protrudes beneath the firing action.
 - A bayonet mount.
 - A flash hider or a threaded barrel designed to accommodate one.
 - A grenade launcher.
2. Semiautomatic pistol having the ability to accept a detachable ammunition magazine and at least two of the following traits:
 - An ammunition magazine attaching outside the pistol grip.
 - A threaded barrel capable of accepting a barrel extender, flash hider, forward handgrip, or silencer.
 - A heat shield attached to or encircling the barrel (this permits the shooter to hold the firearm with the nontrigger hand without being burned).
 - A weight of more than 50 ounces unloaded.
 - A semiautomatic version of a fully automatic firearm.
3. Semiautomatic shotguns having at least two of the following traits:
 - A folding or telescoping stock.
 - A pistol grip that protrudes beneath the firing action.
 - A large magazine capacity of more than five rounds.
 - Ability to accept a detachable ammunition magazine.

Note: A semiautomatic firearm discharges one shot for each pull of the trigger. After being fired, a semiautomatic cocks itself for refiring and loads a new round (i.e., bullet) automatically.

Source: Roth, J. A. & Koper, C. S. (1999, March). *Impacts of the 1994 assault weapons ban: 1994-1996*. [Electronic version]. Washington, DC: U.S. Department of Justice, National Institute of Justice.

Appendix B: Unintentional Firearms Deaths 1903-2001

Year	Deaths	Year	Deaths	Year	Deaths
1903	2,500	1936	2,817	1969	2,309
1904	2,800	1937	2,576	1970	2,406
1905	2,000	1938	2,726	1971	2,360
1906	2,100	1939	2,618	1972	2,442
1907	1,700	1940	2,375	1973	2,618
1908	1,900	1941	2,396	1974	2,513
1909	1,600	1942	2,678	1975	2,380
1910	1,900	1943	2,282	1976	2,059
1911	2,100	1944	2,392	1977	1,982
1912	2,100	1945	2,385	1978	1,806
1913	2,400	1946	2,801	1979	2,004
1914	2,300	1947	2,439	1980	1,955
1915	2,100	1948	2,330	1981	1,871
1916	2,200	1949	2,326	1982	1,756
1917	2,300	1950	2,174	1983	1,695
1918	2,500	1951	2,247	1984	1,668
1919	2,800	1952	2,210	1985	1,649
1920	2,700	1953	2,277	1986	1,452
1921	2,800	1954	2,271	1987	1,440
1922	2,900	1955	2,120	1988	1,501
1923	2,900	1956	2,202	1989	1,489
1924	2,900	1957	2,369	1990	1,416
1925	2,800	1958	2,172	1991	1,441
1926	2,800	1959	2,258	1992	1,409
1927	3,000	1960	2,334	1993	1,521
1928	2,900	1961	2,204	1994	1,356
1929	3,200	1962	2,092	1995	1,225
1930	3,200	1963	2,263	1996	1,134
1931	3,100	1964	2,275	1997	981
1932	3,000	1965	2,344	1998	866
1933	3,014	1966	2,558	1999	824
1934	3,033	1967	2,896	2000	800
1935	2,799	1968	2,394	2001	800

Source: National Safety Council. (2002). *Injury Facts, 2002 Edition*. Itasca, IL: Author.

Appendix C: U.S. Firearms Suicide Death Rate (All Races & Both Sexes)

Year	All	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
1979	6.9	.2	7.6	8.8	8.5	9.0	9.6	10.9	12.3	8.5
1980	6.8	.2	7.7	8.7	8.4	8.6	9.1	10.5	11.1	10.2
1981	7.0	.3	7.7	9.2	8.7	9.1	9.8	10.0	11.5	9.9
1982	7.1	.3	7.5	8.8	8.7	9.3	10.0	11.3	13.0	9.6
1983	7.1	.3	7.3	8.8	8.0	9.2	10.1	11.7	13.8	11.0
1984	7.3	.3	7.3	8.7	8.1	9.2	10.5	12.5	14.4	10.1
1985	7.3	.4	7.7	8.4	7.9	9.2	10.3	12.6	15.7	10.9
1986	7.6	.4	7.8	8.6	8.1	9.4	10.6	13.5	16.6	11.5
1987	7.5	.4	7.5	8.5	8.0	9.2	10.5	13.3	17.2	12.5
1988	7.4	.4	7.9	8.6	8.0	8.7	10.1	12.7	17.4	12.0
1989	7.4	.4	8.1	8.4	7.9	8.7	10.0	12.8	15.8	13.7
1990	7.6	.4	8.6	8.7	8.1	8.7	10.3	12.4	17.5	13.3
1991	7.3	.4	8.5	8.4	7.7	8.9	9.6	11.8	16.7	14.1
1992	7.1	.5	8.5	7.9	7.7	8.3	9.4	11.7	15.6	13.0
1993	7.3	.5	8.9	8.6	7.8	8.5	9.5	11.3	16.0	14.2
1994	7.2	.5	9.3	8.5	7.8	8.2	8.5	10.7	15.4	14.1
1995	7.0	.5	8.5	8.3	7.7	8.1	8.6	11.1	15.0	13.7
1996	6.8	.4	7.5	7.7	7.9	8.4	8.6	10.9	14.4	13.3
1997	6.6	.3	7.1	7.6	7.5	7.9	8.5	10.3	13.7	12.8
1998	6.4	.4	6.7	7.2	7.5	7.7	8.3	10.0	14.5	13.4

Source: National Vital Statistics System, National Center for Health Statistics, Center for Disease Control. (2001, November, 18) [Electronic version]. *Tables HIST001 & HIST001A. Death rates by 10- year age groups and age-adjusted death rates for 113 selected causes, race and sex: United States, 1979-1998*. Washington, DC: U.S. Government Printing Office.

Appendix D: U. S. Rate of Murder and Non-Negligent Manslaughter (per 100,000)

	Age							Sex	Race			
	Total	13 and younger	14 - 17	18 - 24	25 - 34	35-49	50 and older		Male		Female	
									White	Black	Other	
1976	8.8	1.8	4.5	13.8	15.4	12.6	6.8	13.6	4.2	5.1	37.1	7.9
1977	8.8	1.9	4.9	14.3	15.5	12.3	6.6	13.7	4.2	5.4	36.2	7.6
1978	9.0	1.9	5.1	14.6	16.1	12.2	6.3	14.0	4.1	5.6	35.1	7.1
1979	9.7	1.8	5.2	16.5	17.5	12.8	6.7	15.4	4.4	6.1	37.5	8.9
1980	10.2	1.8	5.9	17.5	18.5	13.2	6.8	16.2	4.5	6.3	37.7	5.7
1981	9.8	1.9	5.0	16.0	17.5	13.0	6.7	15.6	4.3	6.2	36.4	6.1
1982	9.1	2.0	4.8	15.0	15.7	11.9	6.2	14.1	4.3	5.9	32.3	4.5
1983	8.3	1.8	4.5	13.7	14.6	10.5	5.5	12.8	3.9	5.3	29.4	6.4
1984	7.9	1.7	4.2	13.2	13.7	10.0	5.1	12.1	3.9	5.2	27.2	5.4
1985	7.9	1.8	4.9	13.2	13.9	9.9	5.0	12.1	4.0	5.2	27.5	5.4
1986	8.6	2.0	5.2	15.3	15.2	10.0	5.0	13.2	4.1	5.3	31.3	6.2
1987	8.3	1.8	5.7	15.4	14.6	9.4	4.9	12.5	4.2	5.1	30.6	5.2
1988	8.4	2.0	6.5	16.3	15.2	9.2	4.7	12.9	4.2	4.9	33.3	4.0
1989	8.7	2.0	7.9	18.1	15.5	9.2	4.6	13.6	4.0	4.9	34.9	4.2
1990	9.4	2.0	9.8	21.1	16.8	9.9	4.5	15.1	4.0	5.4	37.7	4.2
1991	9.8	2.1	11.1	23.9	16.7	10.0	4.5	15.7	4.2	5.5	39.3	6.0
1992	9.3	2.0	11.3	23.4	16.1	9.4	4.2	14.9	4.0	5.3	37.2	5.4
1993	9.5	2.2	12.1	24.4	16.1	9.5	4.2	15.0	4.2	5.3	38.7	5.5
1994	9.0	2.0	11.2	23.6	15.4	8.9	3.8	14.4	3.8	5.0	36.4	4.6
1995	8.2	1.9	11.0	21.5	13.9	8.2	3.8	12.9	3.7	4.8	31.6	4.9
1996	7.4	1.9	9.1	19.5	12.3	7.7	3.4	11.7	3.3	4.3	28.3	4.1
1997	6.8	1.7	7.3	19.1	11.4	6.6	3.2	10.7	3.0	3.9	26.1	4.1
1998	6.3	1.7	6.2	17.4	10.6	6.5	2.8	9.6	3.0	3.8	23.0	2.9
1999	5.7	1.6	5.9	15.5	10.0	5.9	2.8	8.8	2.7	3.5	20.6	3.2

Source: Pastore, A. L. & Maguire, K. (2002). *Sourcebook of criminal justice statistics- 2001*. Washington, DC: U. S. Department of Justice, Bureau of Justice Statistics. Retrieved February 15, 2003 from <http://www.albany.edu/sourcebook>.

Appendix E: Fatal & Non-Fatal Firearms Injuries (by year, age, sex/ethnicity, race, intent, and disposition at Emergency Department)

	1983		1994		1995		1996		1997		1998	
	Fatal	Non-Fatal	Fatal	Non-Fatal	Fatal	Non-Fatal	Fatal	Non-Fatal	Fatal	Non-Fatal	Fatal	Non-Fatal
Age:												
0-14	1.7	8.5	1.5	7.2	1.5	5.9	1.2	6.6	1.1	4.3	1.1	4.3
15-19	27.6	139.2	28.0	112.6	24.4	112.3	21.1	89.7	18.8	81.0	16.3	71.8
20-24	34.1	131.9	33.2	117.3	29.7	107.4	27.5	85.8	26.28	84.3	24.0	80.3
25-34	22.5	64.2	22.0	58.0	20.2	54.2	18.4	43.5	17.8	41.8	16.3	42.7
35-44	16.0	36.5	15.6	29.4	14.4	26.3	14.0	22.2	13.2	18.2	12.8	21.5
≥45	13.9	9.7	13.0	9.9	12.8	9.0	12.6	7.7	12.0	7.6	11.6	7.7
Age-adjusted*	15.1	38.7	14.6	33.3	13.6	31.3	12.8	25.8	12.1	23.6	11.3	23.4
Sex:												
Male	26.8	72.9	26.0	62.5	24.0	58.6	22.5	47.4	21.2	43.6	19.8	42.5
Female	4.5	9.5	4.1	7.7	3.9	6.7	3.6	6.0	3.4	5.3	3.3	6.0
Race/Ethnicity												
White, non-Hispanic	11.6	14.9	11.3	14.4	10.9	13.7	10.5	11.2	10.2	8.7	9.9	9.3
Black	36.6	160.5	34.4	127.1	29.1	108.5	27.4	89.0	24.7	87.5	21.8	87.7
Hispanic	18.1	59.1	17.5	52.5	18.1	55.6	13.5	37.7	11.9	41.6	10.7	36.4
Intent												
Unintentional	6	8.3	5	5.7	5	6.2	4	6.2	4	4.9	3	5.1
Assault/Legal Intervention	7.3	29.7	7.0	26.3	6.1	23.7	5.5	18.2	5.1	17.7	4.5	17.2
Intentionally (self-inflicted)	7.5	2.5	7.3	2.4	7.1	2.2	6.9	1.8	6.6	1.4	6.5	1.6
Disposition at ED												
Treated & Released	—	17.3	—	14.4	—	14.3	—	11.7	—	11.8	—	12.0
Transferred	—	2.1	—	1.8	—	1.9	—	1.6	—	1.8	—	1.6
Hospitalized	—	21.0	—	18.2	—	15.7	—	12.9	—	10.2	—	10.2
Total	15.4	40.4	14.8	34.4	13.7	32.0	12.8	26.2	12.1	24.0	11.4	23.9

* Age-adjusted to year 2000 U.S. population

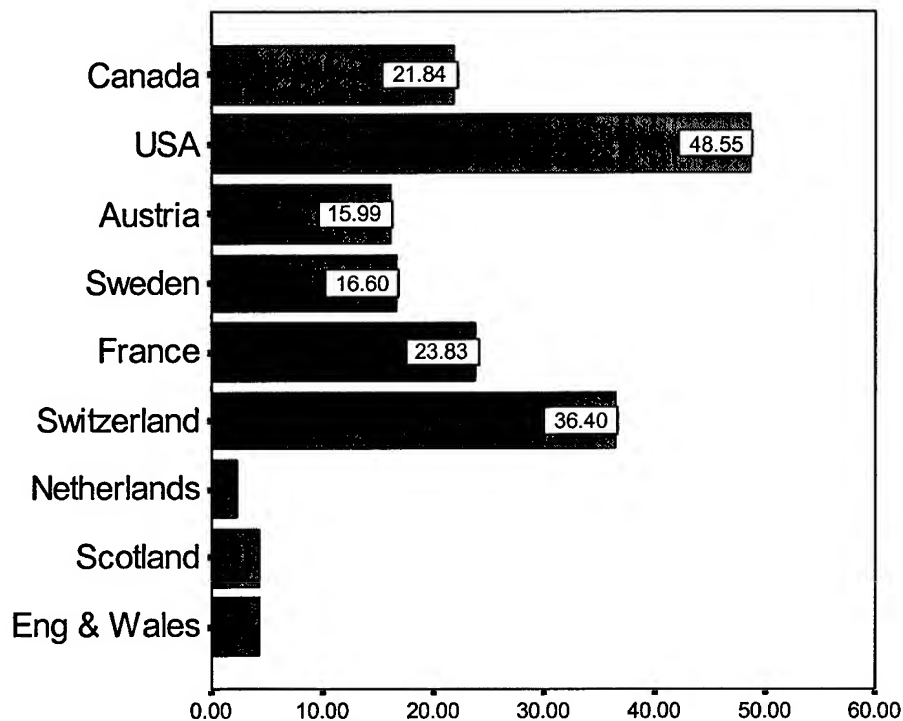
Source: Gotsch, K. E., Arnesen, J. L., Mercy, J. A., & Ryan, G. W. (2001, April 13). Surveillance for fatal and nonfatal firearm-related injuries—United States, 1993–1998. CDC Surveillance Summaries, *Morbidity and Mortality Weekly Report*, 50(SS-2). Washington, DC: United States Government Printing Office.

Appendix F: Firearms Deaths per 100,000 by State

State	Homicide		Suicide	
	Total	Firearms	Total	Firearms
Australia	2.40	.56	12.77	2.38
Brazil	29.17	25.78	.63	.44
Canada	1.99	.60	12.88	3.35
Costa Rica	5.52	2.57	6.54	1.61
Czech Republic	2.8	.92	9.88	1.01
Estonia	22.11	6.12	39.99	3.63
Finland	3.25	.87	27.28	5.78
Germany	1.81	.21	15.80	1.23
Greece	1.33	.55	3.54	1.30
Hungary	4.07	.47	33.34	.88
Jamaica	31.6	18.23	1.46	.36
Japan	.60	.03	17.95	.04
Malaysia	2.13	.2	1.83	.00
New Zealand	1.35	.22	13.81	2.45
Peru	1.41	1.06	.42	.1
Poland	2.61	.27	14.23	.16
Spain	1.58	.19	5.92	.55
Sweden	1.35	.31	15.65	1.95
Tanzania	7.42	.5	.88	.02
Trinidad & Tobago	9.48	3.42	8.08	.08
United Kingdom	1.40	.13	7.55	.33
United States	8.95	6.24	11.54	7.23
Zambia	10.74	5.37	.68	.15

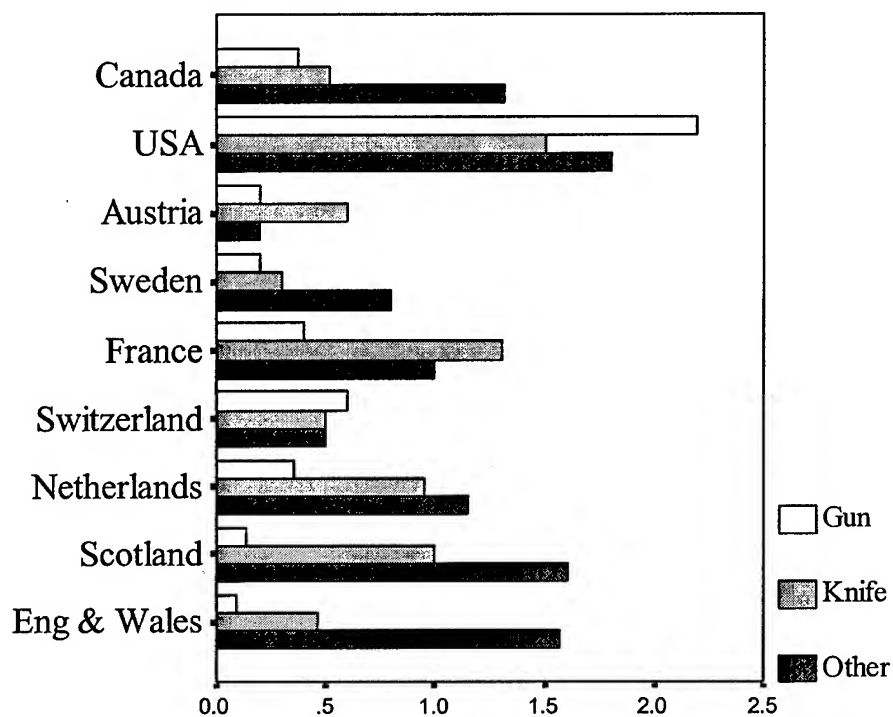
Source: United Nations. (1997). *Criminal justice reform and strengthening of legal institutions: Measures to regulate firearms*. (March, E/CN.15/1997/4) [Electronic version]. Vienna, Austria: Economic and Social Council.

Appendix G: Percent of Households with One or More Guns



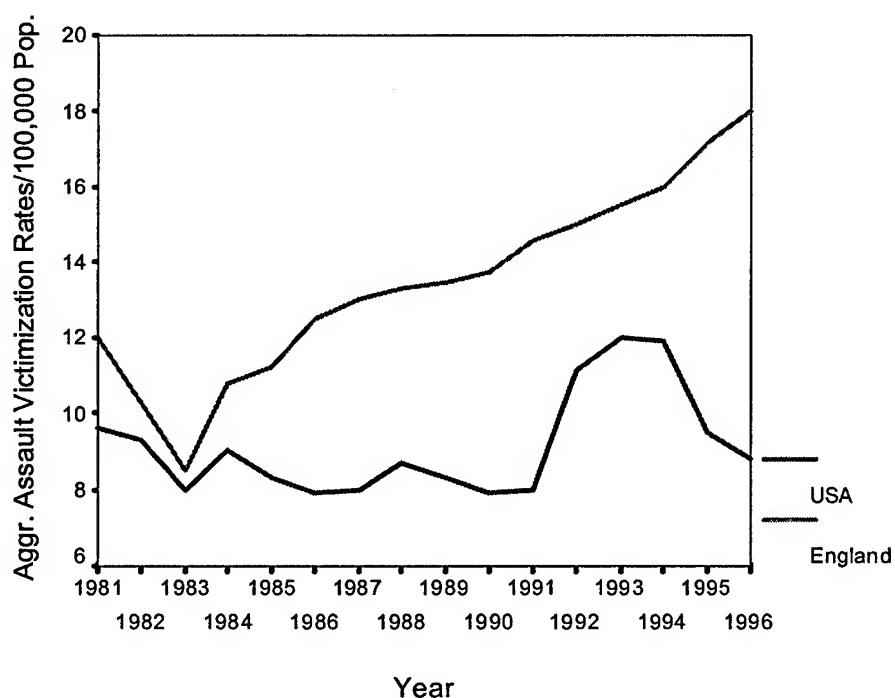
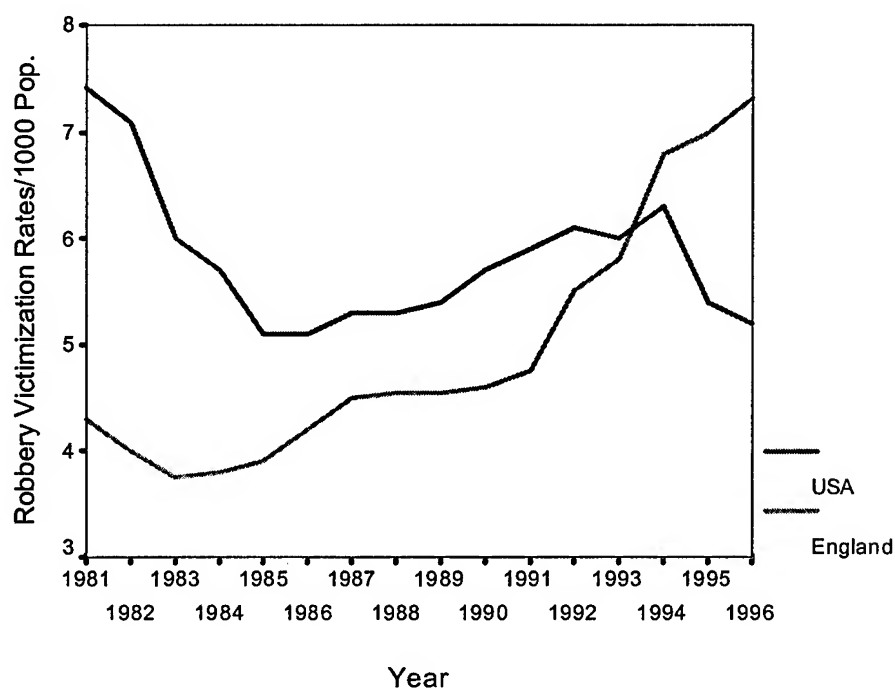
Source: Block, R. (1998). *Firearms in Canada and eight other western countries: Selected findings of the 1996 international crime victim survey* (January, WD1997-3e) [Electronic version]. Department of Justice Canada.

Appendix H: Percent of Respondents Assaulted With Weapon (Last Five Years)



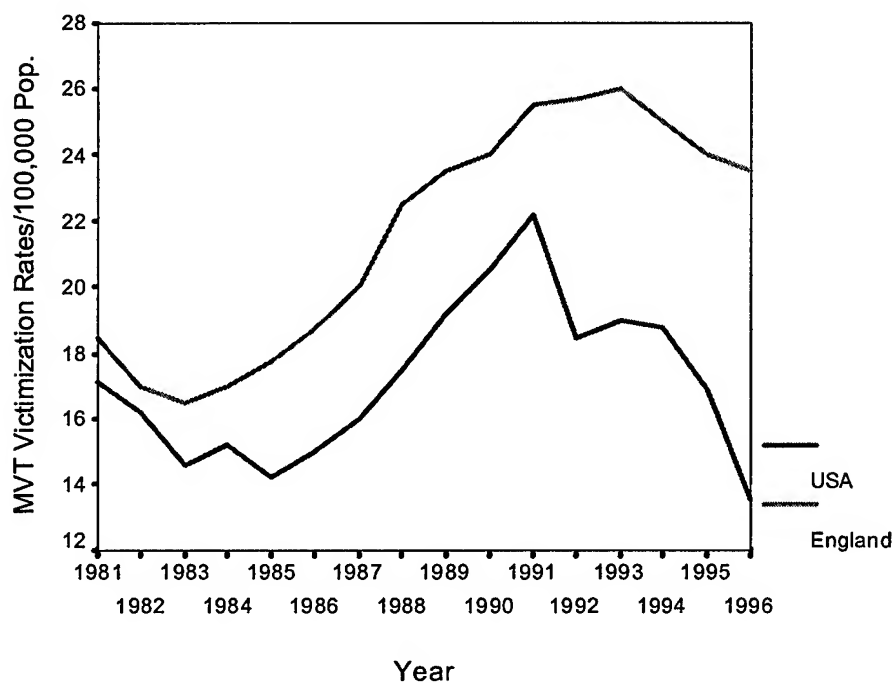
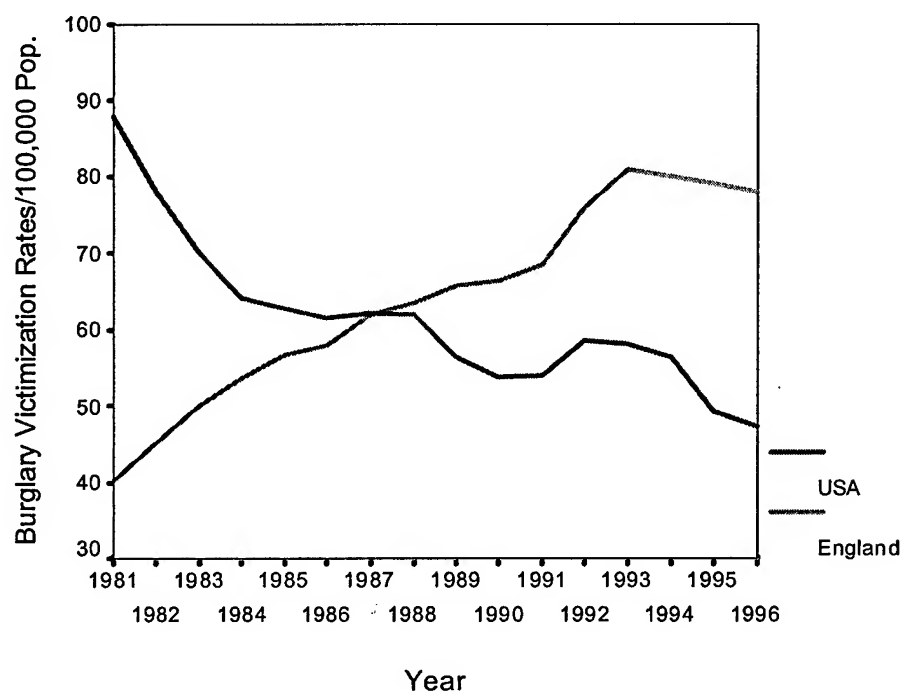
Source: Block, R. (1998). *Firearms in Canada and eight other western countries: Selected findings of the 1996 international crime victim survey* (January, WD1997-3e) [Electronic version]. Department of Justice Canada.

Appendix I: U.S. & English Victimization Rates



Source: Langan, P. A. & Farrington, D. P. (1998). *Crime and justice in the United States and in England and Wales, 1981-1996* (October, NCJ-169248) [Electronic version]. Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics.

Appendix I (Continued): U.S. & English Victimization Rates



Source: Langan, P. A. & Farrington, D. P. (1998). *Crime and justice in the United States and in England and Wales, 1981-1996* (October, NCJ-169248) [Electronic version]. Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics.

Appendix J

	State	Shall Issue Status (Non-Discretionary)	Year Adopted	Number of Counties over 100,000 population
1	Alabama	Yes	Prior to 1977	11
2	Alaska	Yes	1994	1
3	Arizona	Yes	1995	8
4	Arkansas	Yes	1995	4
5	California	No	None	35
6	Colorado	No	None	11
7	Connecticut	Yes	Prior to 1977	8
8	D.C.	No	None	1
9	Delaware	No	None	3
10	Florida	Yes	1987	34
11	Georgia	Yes	1989	15
12	Hawaii	No	None	3
13	Idaho	Yes	1990	3
14	Illinois	No	None	18
15	Indiana	Yes	Prior to 1977	16
16	Iowa	No	None	6
17	Kansas	No	None	4
18	Kentucky	Yes	1996	3
19	Louisiana	Yes	1996	11
20	Maine	Yes	1985	5
21	Maryland	No	None	11
22	Massachusetts	No	None	11
23	Michigan	No	None	20
24	Minnesota	No	None	8
25	Mississippi	Yes	1990	5
26	Missouri	No	None	9
27	Montana	Yes	1991	1
28	Nebraska	No	None	3
29	Nevada	Yes	1995	2
30	New Hampshire	Yes	Prior to 1977	4
31	New Jersey	No	None	20
32	New Mexico	No	None	4
33	New York	No	None	28
34	North Carolina	Yes	1995	23

Appendix J (Cont)

	State	Shall Issue Status (Non- Discretionary)	Year Adopted	Number of Counties over 100,000 population
35	North Dakota	Yes	Prior to 1977	1
36	Ohio	No	None	27
37	Oklahoma	Yes	1995	4
38	Oregon	Yes	1990	9
39	Pennsylvania	Yes	1989	32
40	Rhode Island	No	None	3
41	South Carolina	Yes	1996	14
42	South Dakota	Yes	Prior to 1977	1
43	Tennessee	Yes	1994	11
44	Texas	Yes	1995	34
45	Utah	Yes	1995	4
46	Vermont	Yes	Prior to 1977	1
47	Virginia	Yes	1988	15
48	Washington	Yes	Prior to 1977	11
49	West Virginia	Yes	1989	2
50	Wisconsin	No	None	13
51	Wyoming	Yes	1994	0

Total counties=531

Counties with non-discretionary law prior to observation period=53

Change to non-discretionary during the period=240

Counties without non-discretionary laws=238

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